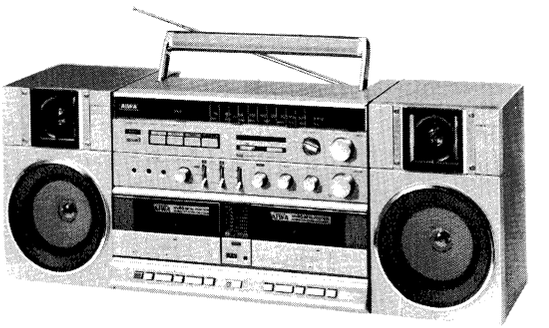
SERVICE MANUAL

MODEL NO.

CARRY COMPONENT SYSTEM

CA-W10



Code No. 35-100-000-93

TYPE. H, HU, HG

DATE OF ISSUE 5/1982

SPECIFICATION

GENERAL

Semiconductors:	13ICs, 70 transistors, 42 diodes, 21 LED
Power source:	Batteries, DC13.5V (UM-1 x 9) AC110~120/220~240V Switchable 50/60 Hz Car battery (thru car adaptor)
Power consumption:	33W
Battery life under continuous use:	Play back-approximately 5 hours (EIAJ) with super EXTRA SUM-1
Dimensions:	332.8(W) x 250(H) x 198(D) mm
Weight:	7.2kg (W/Batteries)

RADIO SECTION

Circuit:	Superheterodyne	
Frequency range:	FM 87.3 ~ 108.4 MHz SW_2 6.8 ~ 22.5 MHz SW_1 2.1 ~ 7.3 MHz MW 515 ~ 1650 kHz	
Intermediate frequency:	FM 10.7 MHz SW_2, SW_1, MW 468 kHz	
Sensitivity:		
(IHF, THD 3%)	FM	15 ± 4dB (at 88 MHz) 17 ± 4dB (at 100 MHz) 14 ± 4dB (at 108 MHz)
(S/N 10 dB)	SW_2	38 ± 5dB (at 7.0 MHz) 27 ± 5dB (at 14.0 MHz) 17 ± 5dB (at 22.0 MHz)
(S/N 10 dB)	SW_1	40 ± 4dB (at 2.3, 4.0 MHz) 45 ± 4dB (at 7.0 MHz)
(S/N 20 dB)	MW	44 ± 4dB (at 600, 1000, 1400 kHz)
Image rejection:	FM	39 ± 5dB (at 108.0 MHz)
	SW_2	9 ± 4dB (at 22.0 MHz)
	SW_1	17 ± 4dB (at 7.0 MHz)
	MW	44 ± 5dB (at 1440 kHz)
IF rejection:	FM	73 ± 6dB (at 88.0 MHz)
	MW	30 ± 5dB (at 600 kHz)
FM stereo separation:	20 ± 3 dB (at 1kHz)	
Antenna:	FM whip antenna Ext. antenna AM bar antenna	

TAPE RECORDER SECTION

Track type:	4 track 2 channels
Tape speed:	4.8cm/s ± 2.5%
Recording system:	AC bias
Erasing system:	AC erase
Record bias frequency:	100 ± 1kHz
Erasing ratio:	More than 60 dB
Separation:	More than 39 dB (at REC/PB)
Channel Balance:	0 ± 1 dB (at PB)
Distortion:	Less than 3% (at PB) Less than 3% (at REC/PB)
Signal noise ratio:	More than 47/46 dB (at PB, DC/AC) More than 42/42 dB (at REC/PB, DC/AC)
Noise level:	Less than 1.25/1.6 mV (DC/AC, MIN.)
Freqeuncy response:	30~16,000 Hz (METAL) 30~14,000 Hz (CrO_2) 30~13,000 Hz (LH)
Output power:	MAX. 28W (14W + 14W)
Head:	[A]deck PB head Hard permalloy head [B] deck REC/PB head Hard permalloy head Erase head Sendust head
Motor:	DC eletctric governer
Wow and Flutter:	0.045% (WRMS)
Auto stop:	Mechanical auto stop system
Pinch roller pressure:	125 ± 15g
Take up torque:	35^{+15}_{-5}g-cm
FF & rewind torque:	110 ± 20g-cm
FF & rewind time:	90 ± 5S (C-60)
Input terminals:	MIX MIC φ6.3 jack LINE IN pin jack PHONO pin jack
Input sensitivity/impedance:	MIC 1.4mV/3KΩ LINE IN 300mV/100KΩ PHONO 5mV/47KΩ
Output terminals:	LINE OUT pin jack EXT. SP φ3.5 jack PHONES φ6.3 jack

SPEAKER SECTION

Type:	2 way type
Speakers:	Woofer 120mmφ x 2 Tweeter 50mmφ x 2
Impedance:	8Ω
Frequency response:	50~18,000 Hz
Sound pressure level:	88 dB/W/m
Allowance maximum input power:	15W
Dimmension:	162.5(W) x 250(H) x 182(D)mm
Weight:	1.75kg

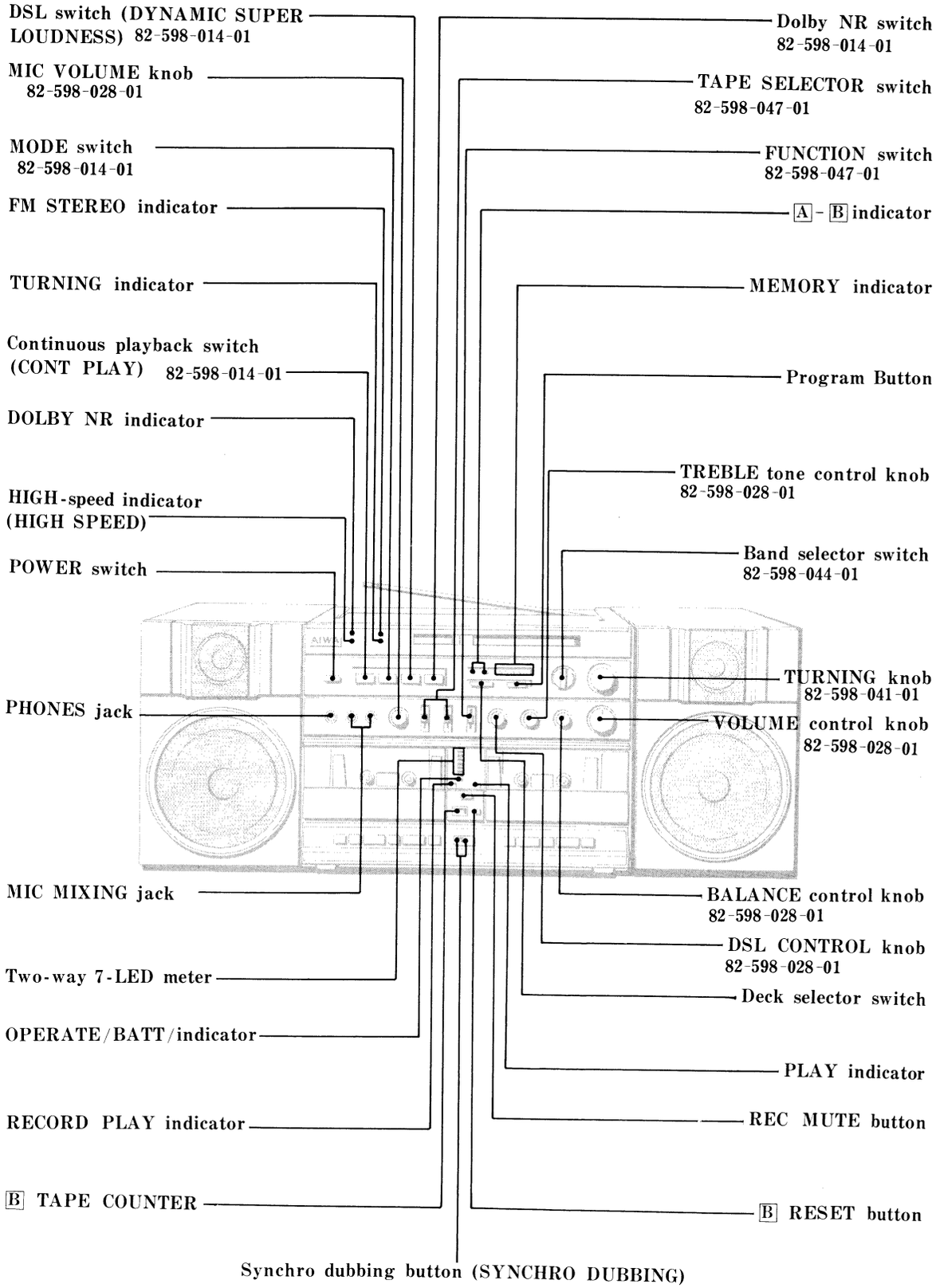
SYSTEM

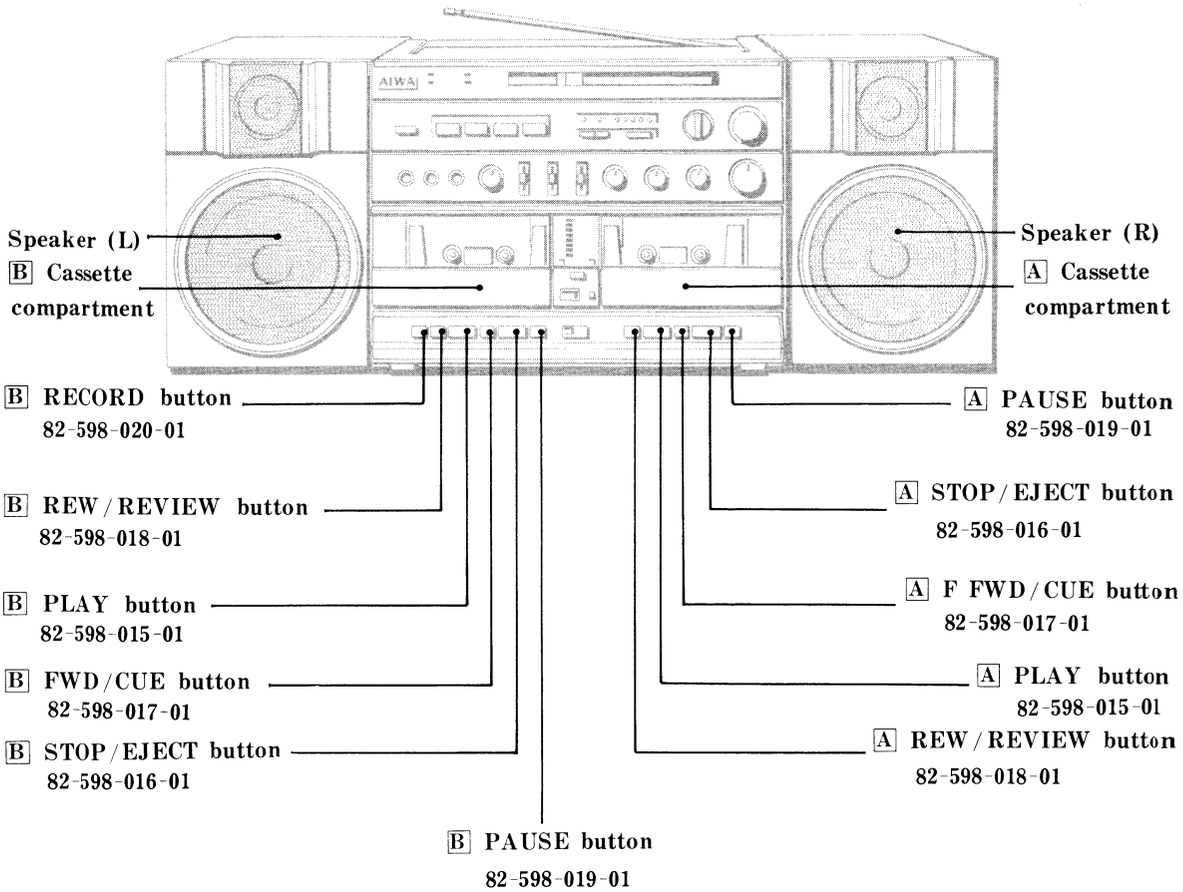
Dimmension:	645(W) x 250(H) x 198(D)mm
Weight:	10.7kg

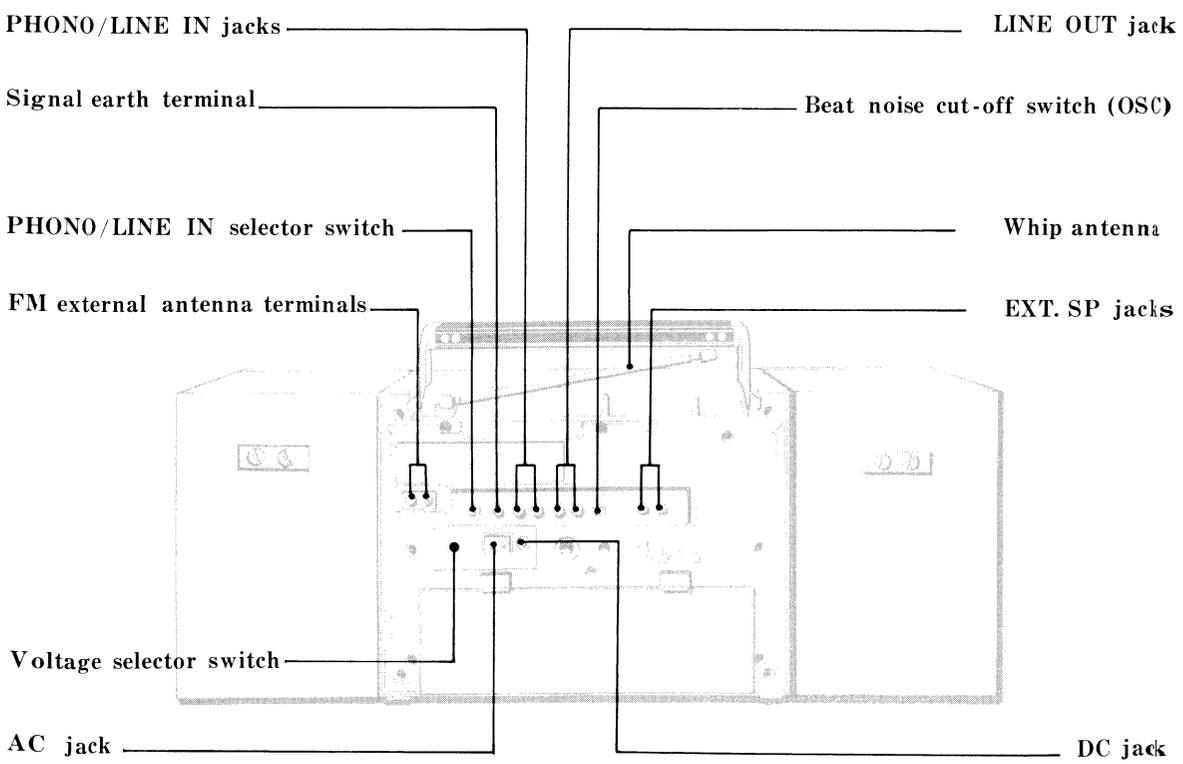
- Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.
- Dolby and the ⊡⊡ symbol are trademarks of Dolby Laboratories Licencing Corporation.
- Specifications and external appearance are subject to change without notice due to product improvement.

AIWA Co., Ltd. Tokyo Japan

DESCRIPTION




Speaker (L)
B Cassette compartment
Speaker (R)
A Cassette compartment
B RECORD button
82-598-020-01
B REW/REVIEW button
82-598-018-01
B PLAY button
82-598-015-01
B FWD/CUE button
82-598-017-01
B STOP/EJECT button
82-598-016-01
B PAUSE button
82-598-019-01
A PAUSE button
82-598-019-01
A STOP/EJECT button
82-598-016-01
A F FWD/CUE button
82-598-017-01
A PLAY button
82-598-015-01
A REW/REVIEW button
82-598-018-01


PHONO/LINE IN jacks
Signal earth terminal
PHONO/LINE IN selector switch
FM external antenna terminals
Voltage selector switch
AC jack
LINE OUT jack
Beat noise cut-off switch (OSC)
Whip antenna
EXT. SP jacks
DC jack

Follow the instructions carefully, which will allow the user to optimise the products performance and give many years of serivce.

1. **No scratch and melting shall be made to covered lead-wires of an a.c. primary circuit including mains leads.**
2. **No illegibility shall be given to the specification plate, the caution labels, the fuse labels and others.**
3. **When, on pattern sides of circuit boards, additional repair-parts have been made up, the parts shall be firmly glued to circuit boards or other components, unless the parts can be attached firmly.**
4. **The following matters shall be maintained as they are, when repairing.**
   1) Soldering of lead-wire ends
      * Care should be taken of the space distance in an a.c. primary circuit as well as soldering.
   2) Wiring and holding of lead-wires with wire-clips and binders
   3) Materials of lead-wires
      * e.g.; For UL models, lead-wires to be used shall be approved or accepted by the UL.
   4) Location of all kinds of insulators
   5) Setting of voltage selector switch
      * Set the Voltage Selector Switch to 240V, 220V, or 120V, According to your Local Voltage.
5. **After repaired, the insulation resistance or leakage current shall be measured with 500 ± 5V D.C and shall be not less than 1MΩ.**
   Measuring points: Measure the resistance between a pin of A, C primary circuit and a pin jack (–)

   Rating: More than 1MΩ/500V DC.
6. **General instructions for mechanism repair**
   1) The heads, capstan and pinch roller shall be cleaned of good quality alcohol after repaired, because dirty heads shall cause distorted sounds while dirty capstan and pinch roller shall occur wow/flutter and take-up fault.
   2) Lubricants been stained the surfaces of transmitting portion of the belts, idlers, capstan and pinch roller shall be removed, because slippery and faulty tape travel shall be caused.
   3) When oiling, only one or two drops shall be applied so as not to run over and be dispersed. Note should be taken of the metal fitting for the capstan and rotating portions of the idlers and pinch roller, especially.
   4) E-rings and poly slider washers shall be replaced with new ones, if once those have been removed. – No re-utilization due to unreliability.
   5) Regular spare-parts shall always be used for repair, because using irregular parts and tampering with the products shall cause deterioration, mulfunction and damage.

DISASSEMBLY INSTRUCTIONS

To remove the main cabinet

1) Pull out ten pcs. of the respective knobs (See figure 1)

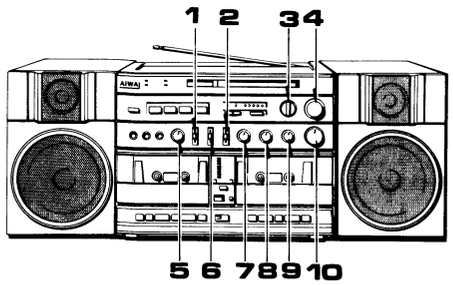


Fig. 1

3) Open the cassette lid by pressing the button, and remove the main cabinet in the direction of the arrows. (See figure 3 and figure 4)

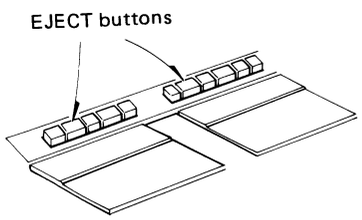


Fig. 3

2) Unfasten the six screws. (See figure 2)

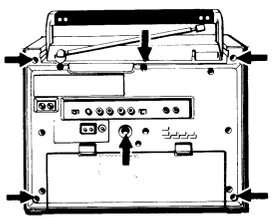


Fig. 2

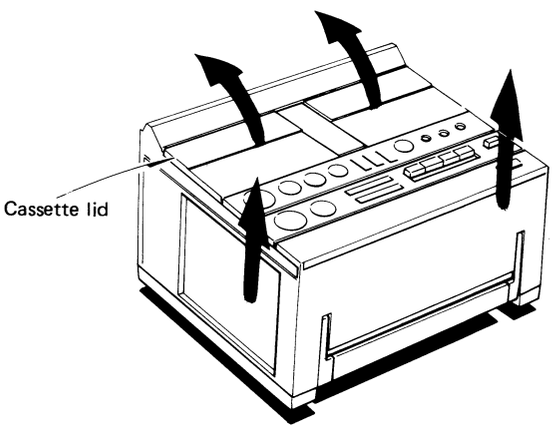


Fig. 4

To remove the mechanisms

1. To remove the dubbing chassis
   1) Unfasten the three screws A to C. (See figure 5)

2. To remove the deck B
   1) Unfasten the two screws D and E to remove the deck B in the direction of the arrows. (See figure 5)

3. To remove the deck A
   1) Unfasten the two screws F and G to remove the deck A in the direction of the arrows. (See figure 5)

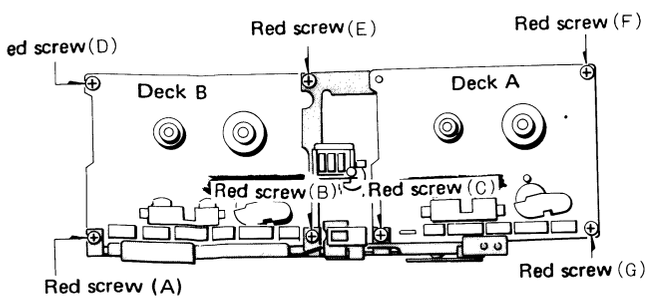


Fig. 5

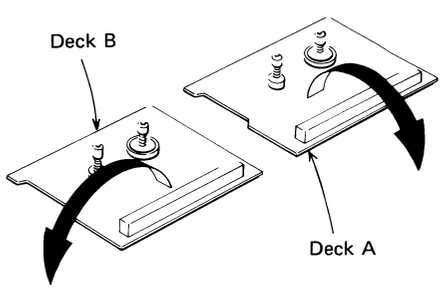


Fig. 5

N.B.

1) When removing the mechanisms, the deck B is prior to the deck A. (See figure 5)

2) When mounting the mechanisms, fastern the screws B and C in the first place in order to set the decks B and A correctly in the fixing position. (See figure 5)

3) When mounting the deck B, make sure that the REC lever is set to the illustrate position. (See figure 6)

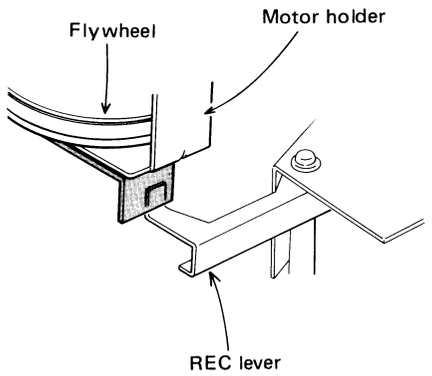


Fig. 6

To remove the main circuit board

1) After loosened the screw for the REC lever, slide it in the direction of the arrow. (See figure 7)

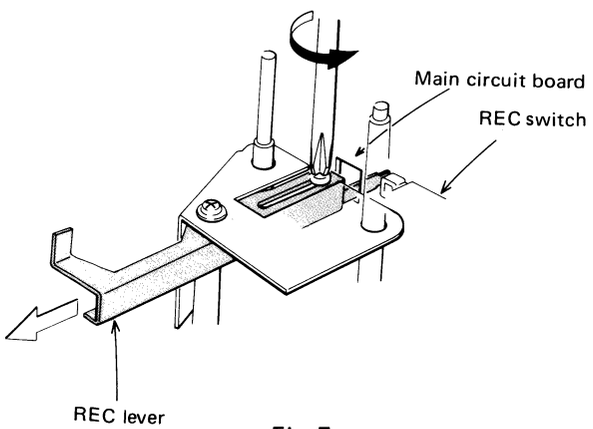


Fig. 7

2) Unfasten the three screws. (See figure 8)

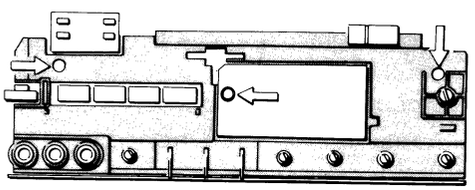


Fig. 8

3) Disconnect the three wires. (See figure 9)

4) Remove the main circuit board in the direction of the arrow. (See figure 10)

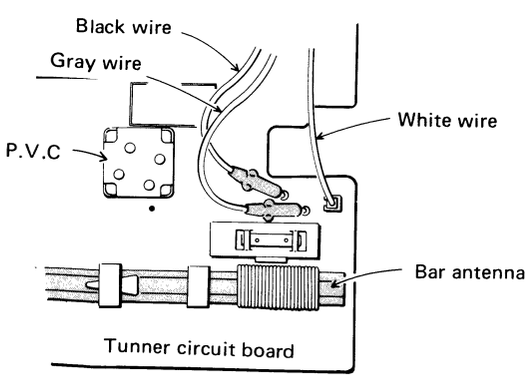


Fig. 9

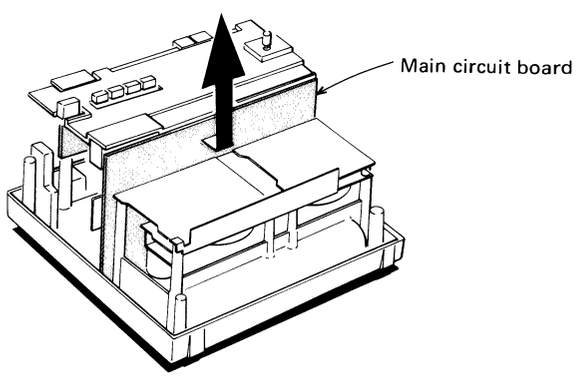


Fig. 10

To remove the turner circuit board

1) Unfasten the screw. (See figure 11)

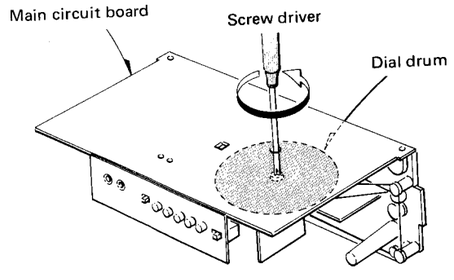


Fig. 11

2) After unfastened the two screws, pull out the p.v.c. from the dial drum to remove the tuner circuit board. (See figure 12)

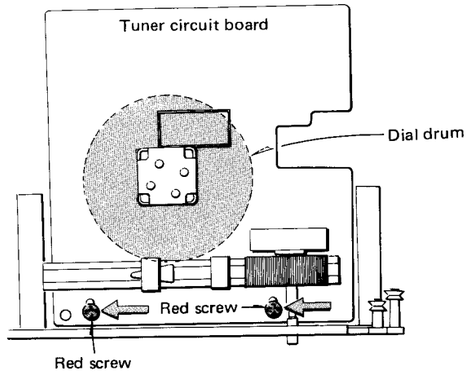


Fig. 12

To dismount the speaker

1) Unfasten the four decorative screws A to D by a hexagonal wrench of 2.5mm. (See figure 13)

2) Unfasten the two screws E and F. (See figure 13)

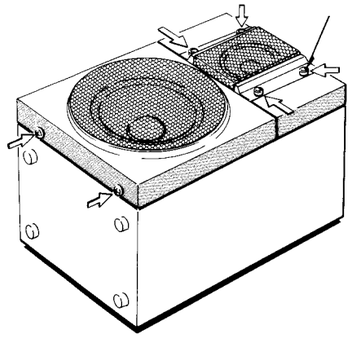


Fig. 13

3) Unfasten the two screws. (See figure 14)

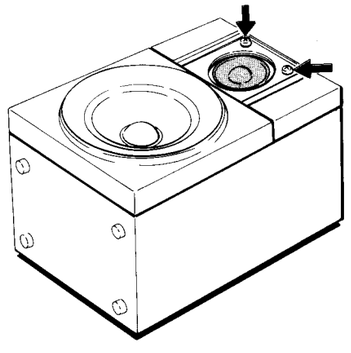


Fig. 14

4) Remove the front panel in the direction of the arrow (2) while distorting the enclosure by pressing the side board in the direction of the arrows (1). Because the front panel is attached to the enclosure with double-face adhesive tape.

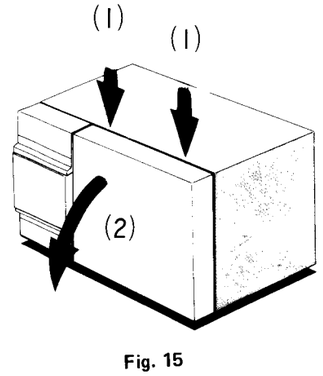
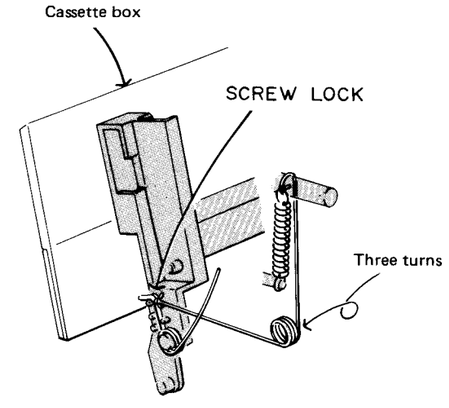
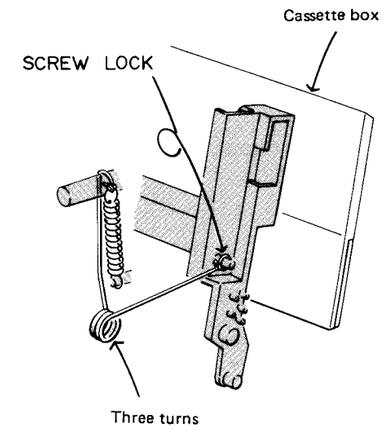


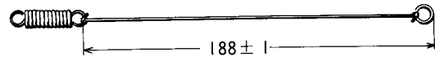
Fig. 15

AIR-DAMP CORD STRINGING



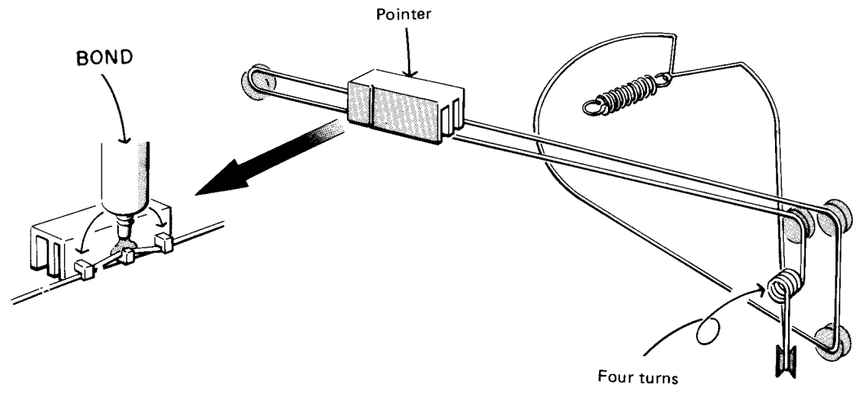
RIGHT (DECK-A)

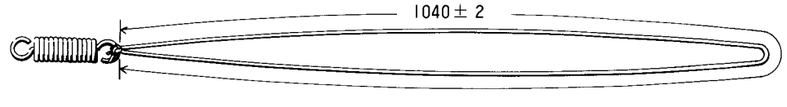




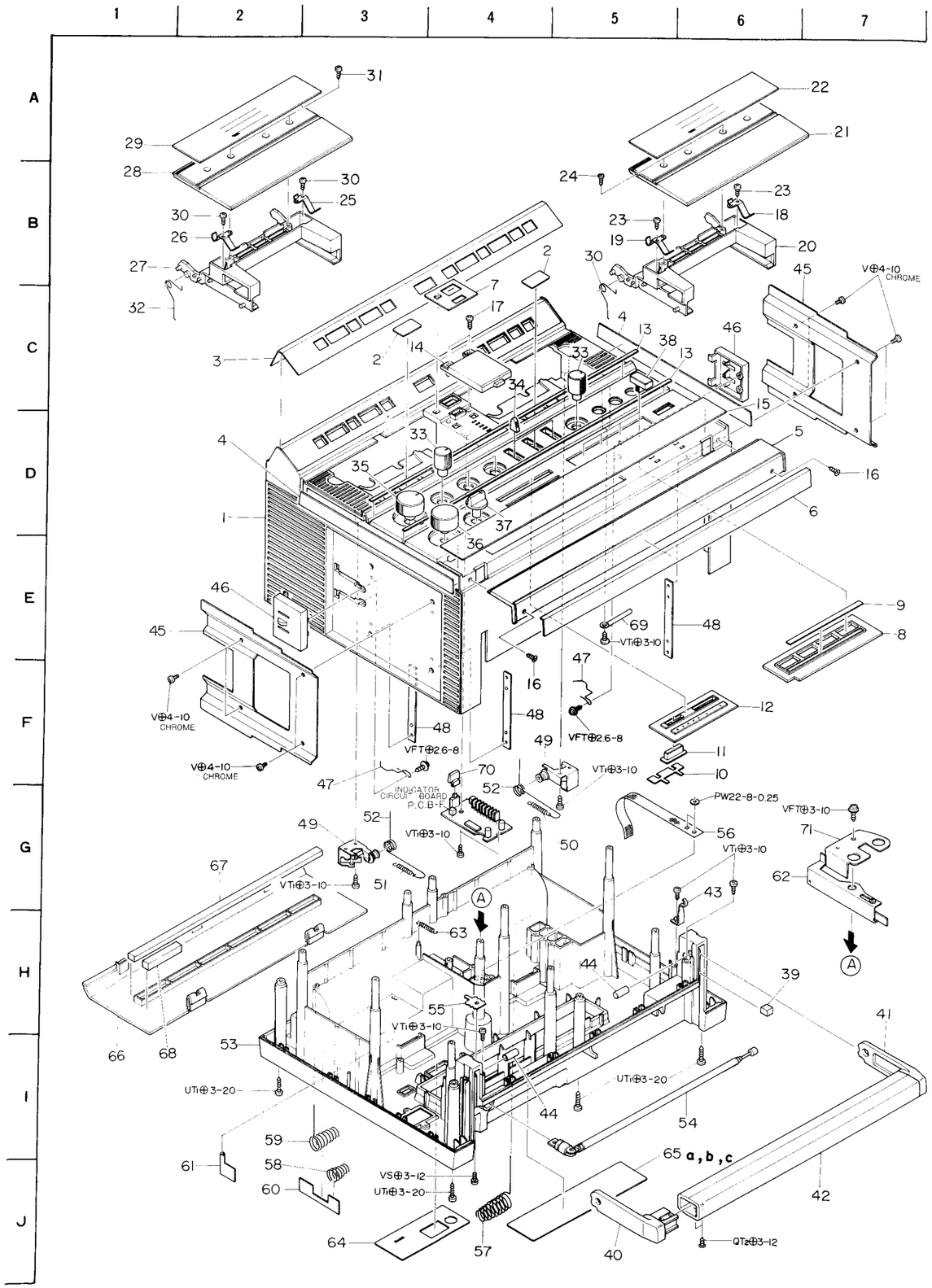
LEFT (DECK-B)

DIAL CORD STRINGING





EXPLODED VIEW–1



PARTS LIST

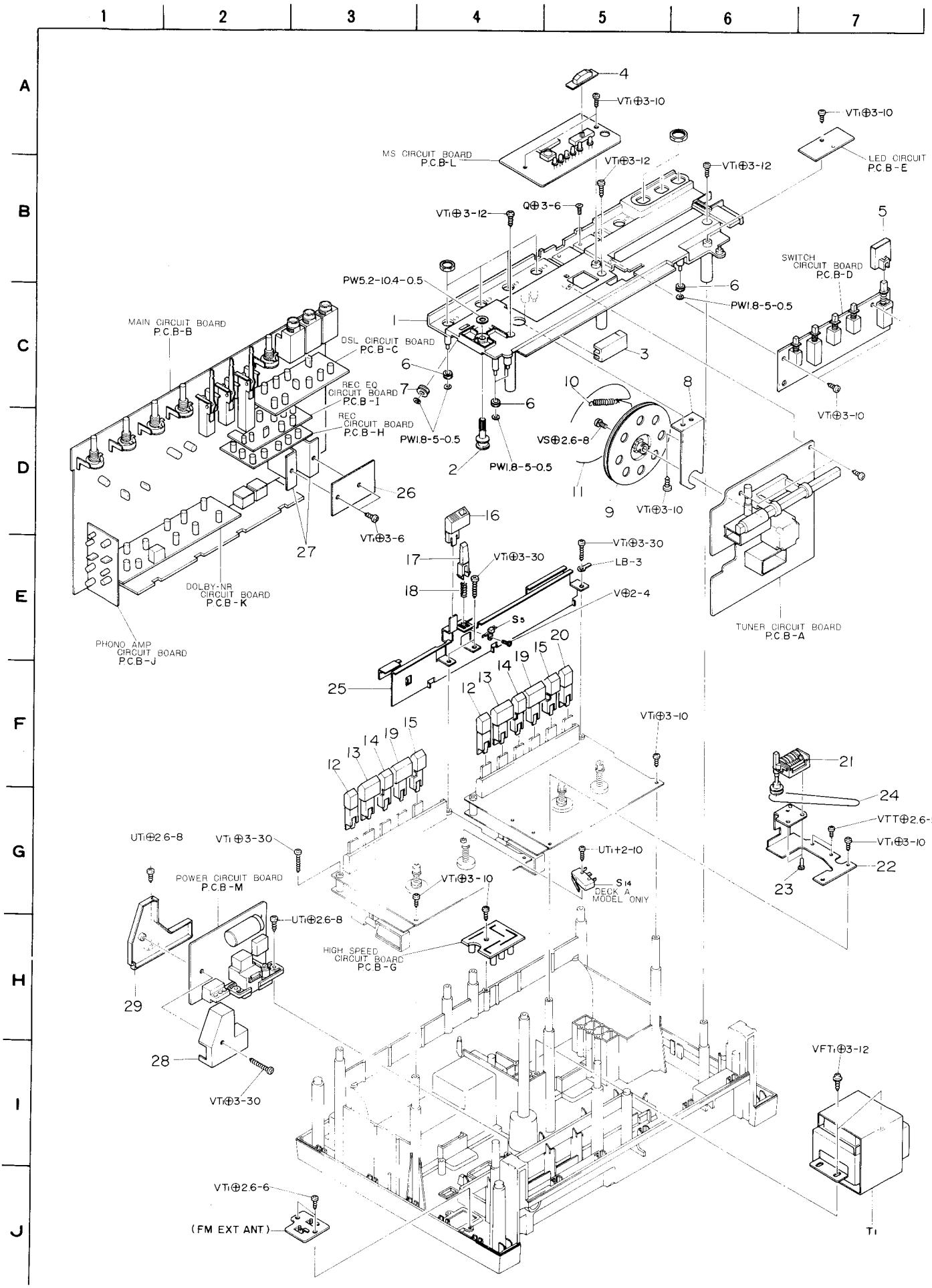
MECHANICAL PARTS

■ * mark in this part list shows exclusive pa

Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
1~17	09-017-896-01		Main cabinet ass'y	*	1
1-1	82-598-077-01		Cabinet, Main	*	1
1-2	82-648-025-01		Label, Tape indicator		2
1-3	82-598-030-01		Name plate, Push-key	*	1
1-4	82-598-026-01		Blind name A	*	2
1-5	82-598-004-01		Window, Dial	*	1
1-6	82-598-006-01		Name plate, Dial window	*	1
1-7	82-598-011-01		Name plate, LED window	*	1
1-8	82-598-023-01		Guide, Button	*	1
1-9	82-598-024-01		Name plate, Button guide	*	1
1-10	82-747-206-01		Plate spring B		1
1-11	82-598-036-01		Knob, MPS	*	1
1-12	82-598-038-01		Button guide, MPS	*	1
1-13	82-598-048-01		Plate, Cabinet	*	2
1-14	82-598-007-01		Window, LED	*	1
1-15	82-598-060-01		Plate, Dial	*	1
1-16	87-321-075-21		QT_1 + 2.6–10		2
1-17	87-351-074-21		VT_1 + 2.6–8		2
18~24	09-017-888-01		Cassette lid B ass'y	*	1
1-18	82-592-202-11		P-spring, Cassette holder L		1
1-19	82-592-203-11		P-spring, Cassette holder R		1
1-20	82-592-003-21		Cassette box		1
1-21	82-598-005-01		Window, Cassette	*	1
1-22	82-598-010-01		Name plate, Cassette window	*	1
1-23	87-351-072-21		VT_1 + 2.6–5		2
1-24	87-351-096-21		VT_1 + 3–10		2
25~31	09-017-887-01		Cassette lid A ass'y	*	1
1-25	82-592-202-11		P-spring, Cassette holder L		1
1-26	82-592-203-11		P-spring, Cassette holder R		1
1-27	82-598-003-21		Cassette box	*	1
1-28	82-598-005-01		Window, Cassette	*	1
1-29	82-598-042-01		Name plate, Cassette window	*	1
1-30	87-351-072-21		VT_1 + 2.6–5		2
1-31	87-351-096-01		VT_1 + 3–10		2
1-32	82-582-218-11		T-spring, Cassette lid	CS-880	2
1-33	82-598-028-01		Knob 15, Volume	*	4
1-34	82-598-047-11		Knob, Toggle	*	3
1-35	82-598-012-01		Knob 25, Volume	*	1
1-36	82-598-041-01		Knob, Tuning	*	1
1-37	82-598-044-01		Knob, Band	*	1
1-38	82-598-014-01		Knob, Selector	*	4
1-39	82-598-243-01		G cushion	*	1
1-40	82-587-012-01		Handle R	CS-880	1
1-41	82-587-013-01		Handle L	CS-880	1
1-42	82-598-029-01		Handle glip	*	1
1-43	82-534-203-01		Click plate spring R		1
1-44	82-587-212-01		Chaft, Handle	CS-880	2
1-45	82-598-027-01		Joint, Metal fitting	*	2
1-46	82-598-222-01		Boss speaker	*	2
1-47	82-598-234-11		T-spring, Joint	*	4
1-48	82-598-203-01		Plate nut	*	4
1-49	87-078-003-01		Air-damp unit ass'y		2
1-50	82-598-241-01		E-spring, Air-damp B	*	1
1-51	82-598-240-01		E-spring, Air-damp A	*	1
1-52	87-096-045-01		Dial string		2
1-53	82-598-002-01		Back cover	*	1
1-54	87-043-058-01		Whip antenna		1
1-55	82-587-220-01		Terminal plate, Antenna	CS-880	1
1-56	82-598-033-01		Ribbon, Battery	*	1

Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty	
1-57	82-598-221-01		C-spring B	*	1	
1-58	82-222-036-01		Spring, Battery		1	
1-59	82-598-220-01		C-spring A	*	1	
1-60	82-551-213-01		Battery contact	TPR-935	1	
1-61	82-587-215-01		Battery terminal plate	CS-880	1	
1-62	82-598-235-11		REC lever ass'y	*	1	
1-63	82-598-231-01		E-spring, REC	*	1	
1-64	82-598-064-01		Name plate, AC jack	*	1	
1-65a	82-598-068-01		Name plate, Spec. (H model only)	*	1	
1-65b	82-598-075-01		Name plate, Spec. (HU model only)	*	1	
1-65c	82-598-074-01		Name plate, Spec. (HG model only)	*	1	
1-66	82-598-003-01		Battery room lid	*	1	
1-67	82-598-224-01		Cushion A, Battery	*	1	
1-68	82-598-225-01		Cushion B, Battery	*	1	
1-69	87-038-039-01		Wire binder		1	
1-70	82-598-022-01		Knob, REC MUTE	*	1	
1-71	82-598-250-01		Plate, REC A	*	1	

EXPLODED VIEW–2

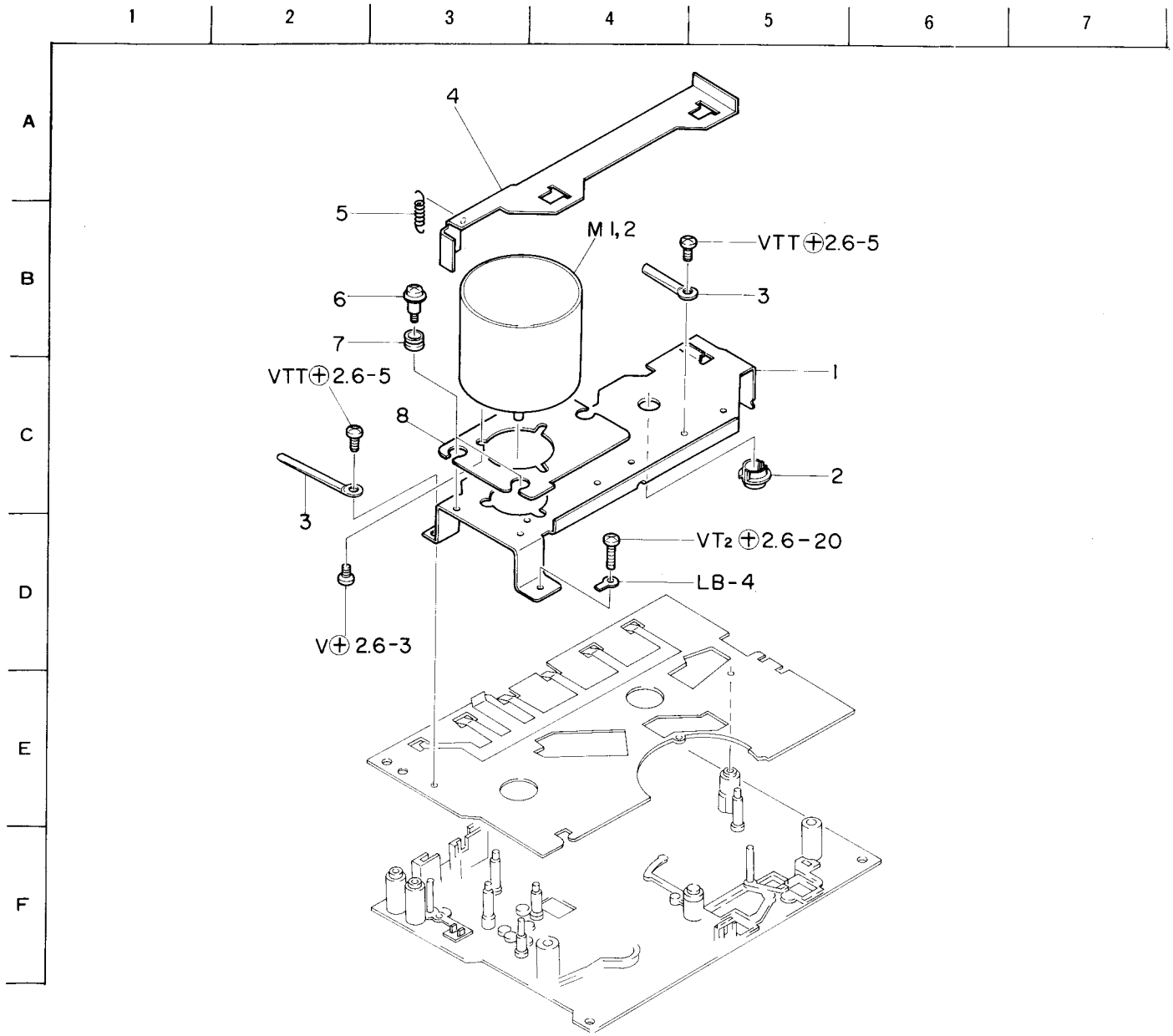


Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
2-1	82-598-201-01		Chassis, Radio	*	1
2-2	82-598-226-01		Shaft, Tuning	*	1
2-3	82-598-009-01		Pointer, Tuning	*	1
2-4	82-598-037-01		Knob, Slide MPS	*	1
2-5	82-780-008-01		Push-button C	SA-C80	1
2-6	81-385-014-01		Roller		4
2-7	81-302-107-01		Roller		1
2-8	82-588-204-01		Holder, Drum	CS-770	1
2-9	82-570-204-21		Drum, Dial		1
2-10	82-541-291-01		E-spring, Dial	TPR-950	1
2-11	87-096-045-01		String, Dial		1
2-12	82-598-019-01		Push-key, PAUSE	*	2
2-13	82-598-016-01		Push-key, STOP	*	2
2-14	82-598-017-01		Push-key, FF	*	2
2-15	82-598-018-01		Push-key, REW	*	2
2-16	82-598-034-01		Push-key L	*	1
2-17	82-598-035-01		Push-key S	*	1
2-18	82-598-232-01		C-spring, Button	*	1
2-19	82-598-015-01		Push-key, PLAY	*	2
2-20	82-598-020-01		Push-key, REC	*	1
2-21	87-040-157-01		Counter ass'y		1
2-22	82-598-202-01		Holder, Counter	*	1
2-23	87-084-088-01		Nylon rivet		2
2-24	82-548-205-01		Belt, Counter	TPR-200	1
2-25	82-598-204-01		Dubbing chassis ass'y	*	1
2-26	82-598-602-01		Heat sink B	*	1
2-27	82-598-601-01		Heat sink A	*	1
2-28	82-551-246-11		Cover, Fuse	TPR-935	1
2-29	82-598-217-01		Holder, circuit board	*	1

EXPLODED VIEW–3

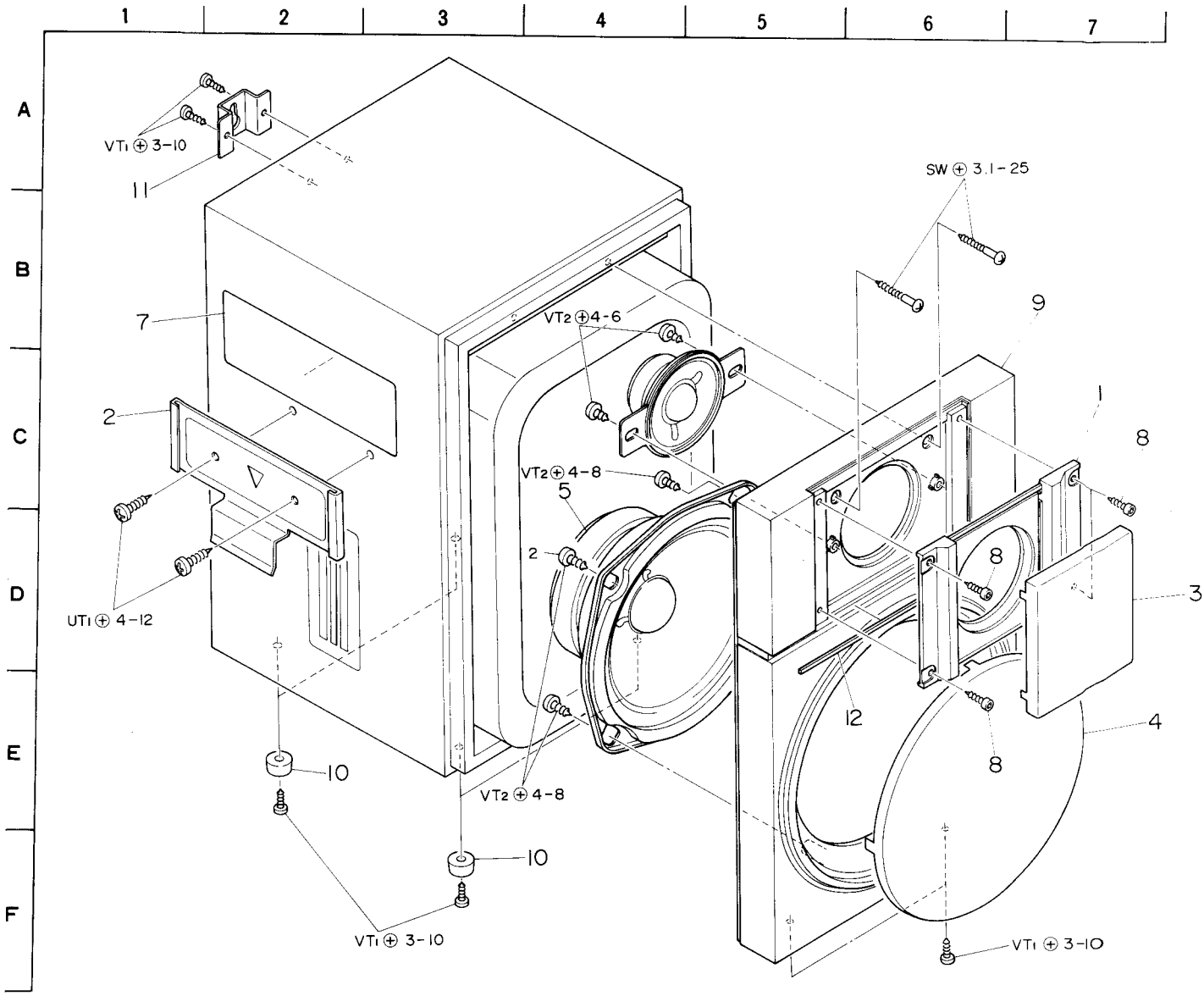
As the MD-3 Mechanism is adopted in this model, the exploded view is omitted --- See the supplement MD-3 Mechanism manual in case of repair and parts order.

The following is the exploded view of the exclusive mechanism and the motor attachments. The part-code list of such is described as well.



Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Deck A	Deck B
3-1	82-598-229-01		Holder, Motor	AD-3500	1	1
3-2	82-585-326-11		Thrust bearing B		1	1
3-3	87-038-039-01		Wire binder		2	2
3-4	82-598-218-01		Slide plate REC	*	—	1
3-5	82-587-241-01		E-spring, Slide plate	CS-880	—	1
3-6	87-081-483-01		Motor screw, M2.6		3	3
3-7	87-087-029-01		Rubber cushion		3	3
3-8	82-598-228-01		Plate, Motor	*	1	1

EXPLODED VIEW SC-W10



Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
1	83-061-012-01		Decorative, Tweeter	*	2
2	83-061-014-01		Joint	*	2
3	83-061-016-01		Grille, Tweeter	*	2
4	83-061-017-01		Grille, Woofer	*	2
5	83-061-601-01		Speaker woofer	*	2
6	82-563-602-01		Speaker tweeter	CS-990	2
7	83-061-027-01		Name plate, Spec.	*	2
8	83-061-024-01		Hexagon socket head screw 3–10	*	8
9	83-061-011-01		Baffle	*	2
10	83-061-013-01		Foot	*	8
11	83-061-050-01		Metal fittng, Carrying handle	*	2
12	83-061-023-01		Decorative plate (Stripe)	*	2

Circuit description

1. MPS MS IC (LC7515)

New LC7515 is used as an IC for MS. This IC can detect the beginning and end of 5 desired tunes and the display is directly driven by LED.

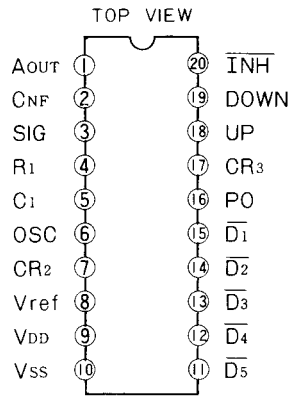


Fig. 1

• Description of pin

Pin	Symbol of pin	Description
①	A_{OUT}	Pre-amp output
②	C_{NF}	Setting gain for pre-amp
③	SIG	Audio signal input pin
④, ⑤	R_1 C_1	Externally attached CR pin used for Tune presence detection integrating circuit
⑥	OSC	Externally attached CR pin of the oscillator circuit for internal logic
⑦	CR_2	Externally attached CR pin for setting the tune interval detection time
⑧	Vref	+B
⑨	V_{DD}	+B
⑩	V_{SS}	GND
⑪ ~ ⑮	$\overline{D}_5 \sim \overline{D}_1$	Programmed number of tune display LED driver output pins
⑯	PO	Plunger control output pin plan
⑰	CR_3	PO pulse width setting externally attached CR pin
⑱	UP	UP direction number of tune setting input pin
⑲	DOWN	(Not used)
⑳	$\overline{INH}$	Pin to inhibit tune interval detection operation

2. MP system, MS circuit

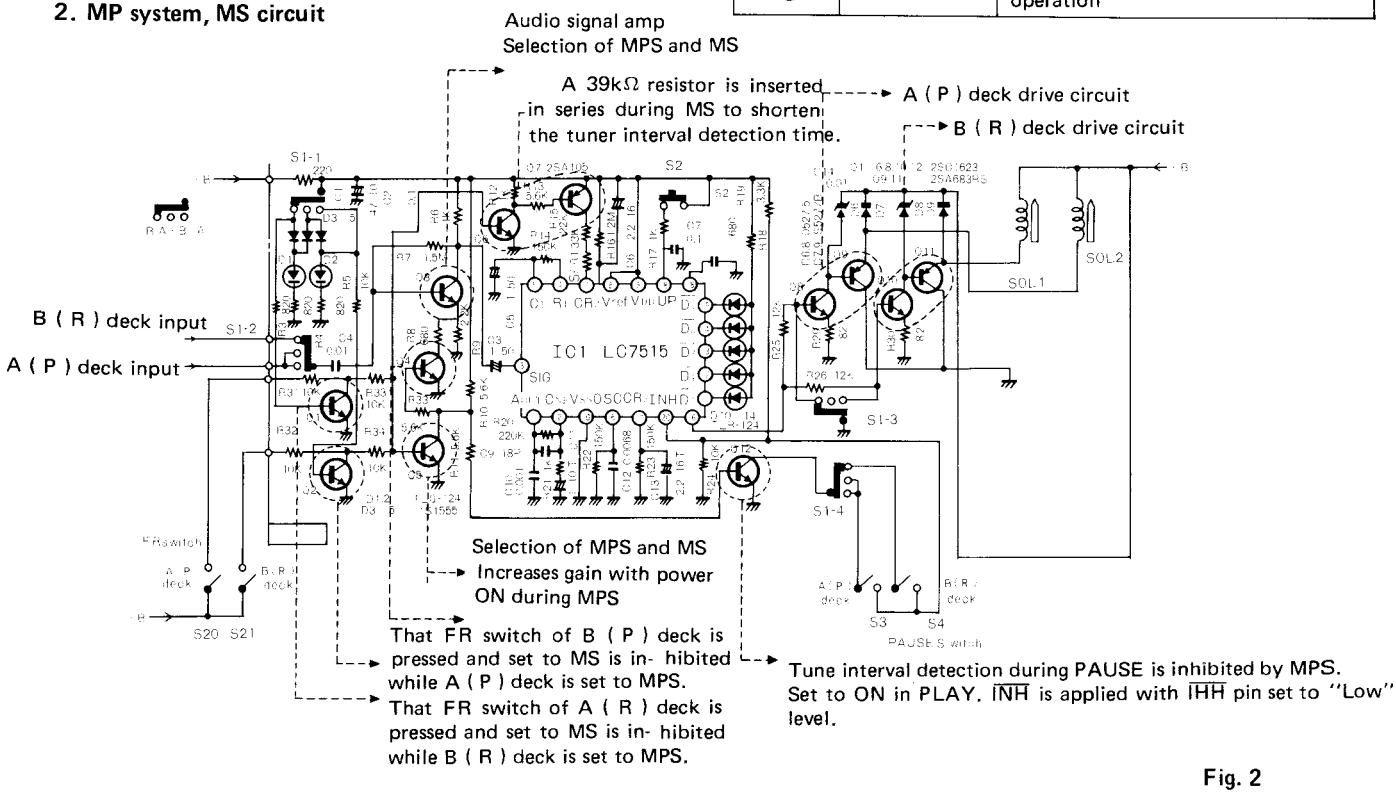

Audio signal amp
Selection of MPS and MS
A 39kΩ resistor is inserted in series during MS to shorten the tuner interval detection time.
A (P) deck drive circuit
B (R) deck drive circuit
B (R) deck input
A (P) deck input
IC1 LC7515
SOL1
SOL2
Selection of MPS and MS
Increases gain with power ON during MPS
That FR switch of B (P) deck is pressed and set to MS is in- hibited while A (P) deck is set to MPS.
That FR switch of A (R) deck is pressed and set to MS is in- hibited while B (R) deck is set to MPS.
Tune interval detection during PAUSE is inhibited by MPS. Set to ON in PLAY. INH is applied with INH pin set to "Low" level.

Fig. 2

Tune selection operation is done by setting pin ⑳ $\overline{INH}$ to 'High'' level from "Low'' level when power is supplied.
The 1μF capacitor is discharged when a tune is present, and when the audio signal is input from SIG pin ③, the 1μF capacitor is charged by R1 pin ④ via the resistor.
When C1 pin is set to 1/2 of Vref, it is judged by the IC that a tune is present.

Between CR_2 pin ⑦ and GND is set to ON inside IC when a tune is present, so the capacitor is charged.
It is set to OFF during the tune interval and the voltage at CR_2 pin ⑦ is boosted; when it is set to 1/2 of Vref, it is judged to be the tune interval and DOWN count is performed.
When the count is set to 0, a pulse is generated from PO pin ⑯ to drive the plunger.

ELECTRICAL MAIN PARTS LIST

Symbol No.	Part No.	Description
≪TUNER CIRCUIT BOARD SECTION≫		
PCB-A	82-593-626-11	Tuner circuit board
IC1	87-027-734-01	IC, HA12413
IC2	87-027-867-01	IC, TA7343P
Q1,2,4	89-319-233-01	Transistor, 2SC1923 (Q)
Q3	89-307-103-01	Transistor, 2SC710 (C)
Q5,7	89-318-155-01	Transistor, 2SC1815 (GR)
Q6	89-318-154-01	Transistor, 2SC1815 (Y)
Q8	89-303-804-01	Transistor, 2SC380 (Y)
D1	87-017-004-01	Diode, SD-117
D2	87-027-226-01	Zener diode, RD, 5.6 EB
L1,2	82-584-639-01	FM antenna coil
		FM OSC coil
L3	82-576-650-01	SW_2 antenna coil
L6	82-563-667-01	SW_2 OSC coil
L7	82-563-666-01	SW_1 OSC coil
L8	82-563-663-01	MW OSC coil
L9	87-008-209-01	FM quad coil
VC1~4	87-011-129-11	PVC
TC1,2,5,6		
TC3,7	87-011-099-01	Trimmer, 8pF
TC4	87-011-126-01	Trimmer, 18pF
TC8	87-011-108-01	Trimmer, 8pF
CF1,2	87-008-153-01	Ceramic filter, 10, 7MA5
CF3	87-008-231-01	Ceramic filter, 468BL
BPF1	87-030-081-01	Band pass filter 108
IFT1	87-008-223-01	AM IFT
IFT2	87-008-232-01	AM IFT 468 kHz
S23	82-588-635-11	Rotary switch (BAND SELECTOR)
SFR1	87-021-566-01	Semi-fixed resistor, 5kΩ-B
CON1	87-032-967-01	Pin, 7P
	87-032-981-01	Wire post
		< **Capacitors** >
C56	87-015-464-01	4.7μF 16V Electrolytic
C33	87-014-045-81	330pF PP
C59	87-014-057-41	1000pF PP
C32	87-014-061-41	1500pF PP
C31	87-014-073-41	4700pF PP
≪MAIN CIRCUIT BOARD SECTION≫		
PCB-B	82-598-621-31	Main circuit board
IC1	87-027-714-01	IC, M51542 (L)
IC2	87-027-539-01	IC, LA3161
IC3,4	87-027-851-01	IC, AN7158
Q1,2	89-322-405-01	Transistor, 2SC2240 (GR)
Q3,9,10 19,20,23, 24	89-304-582-31	Transistor, 2SC458 (B,C)
Q4	89-318-464-01	Transistor, 2SC1846 (R)
Q5,6,11, 12,13,14, 15,16,21, 22,25	89-304-583-01	Transistor, 2SC458 (C)
Q7,8,17, 18,26	89-320-011-21	Transistor, 2SC2001L
D1,2,4,5, 6,7,8,10, 11,14,15, 16,20,21, 22,23,24	87-027-097-01	Diode, 1S1555
D3	87-027-211-01	Zener diode, RD3.9E
D9,19	87-027-606-01	Zener diode, HZ7C2L

Symbol No.	Part No.	Description
D12,13	87-027-365-01	Diode, S5277B
L1,2	87-005-088-01	Micro inductor coil, 5.6mH
L3,4	82-487-654-01	Coil, 10mH
L5	82-401-661-01	Choke coil, 600μH
L6,7	87-003-065-01	Choke coil, 360mH
CP1	82-598-609-01	Bias OSC unit (BIAS OSC UNIT)
J1,2,5,6,7,8	82-598-616-01	Jack plate ass'y (PHONO/LINE IN, LINE OUT, EXT-SP, GND)
J3,4	87-049-042-01	Jack, 3.5φ (MIC MIX)
J9	87-049-043-01	Jack, 6.3φ (PHONES)
VR1	82-598-603-01	Volume, 20kΩ-B (MIC)
VR2	87-021-668-01	Volume, 50kΩ-A (TREBLE)
VR3	87-021-669-01	Volume, 100kΩ-W (BALANCE)
VR4	87-021-667-01	Volume, 20kΩ-A (VOLUME)
VR5	82-598-634-01	Volume, 2kΩ-B (DSL)
S6	82-563-609-01	Slide switch (PHONO/LINE IN)
S7	82-598-619-01	Lever switch (FUNCTION)
S8	82-598-620-01	Lever switch (TAPE SELECTOR A)
S9	82-598-618-01	Lever switch (TAPE SELECTOR B)
S10	82-598-617-01	Slide switch (REC/PB)
S22	82-431-604-01	Slide switch (OSC)
SFR1,2	87-021-717-01	Semi-fixed resistor, 220Ω-B
SFR3,4	82-587-634-01	Semi-fixed resistor 100Ω-B
SFR5,6	87-021-624-01	Semi-fixed resistor, 50kΩ-B
SFR7	87-021-719-01	Semi-fixed resistor, 5kΩ-B
SFR8,10	87-021-623-01	Semi-fixed resistor, 20kΩ-B
SFR9,11	87-021-622-01	Semi-fixed resistor, 10kΩ-B
		< **Resistors** >
⚠R90,91	87-029-108-01	1Ω ½W Fuse resistor
⚠R81	87-029-109-01	220Ω ¼W Fuse resistor
R117,118,119, 120	87-025-239-01	2.2Ω ¼W Nonflammable
R85	87-025-332-01	10Ω ¼W Nonflammable
R84	87-025-333-01	56Ω ¼W Nonflammable
		< **Capacitor** >
C37,38	87-014-041-01	220pF PP
C101,102	87-014-043-01	270pF PP
C35,36	87-014-049-81	470pF PP
C11,12	87-014-053-81	680pF PP
C61,62	87-015-428-01	0.22μF 25V Aluminum solid
≪DSL CIRCUIT BOARD SECTION≫		
PCB-C	82-598-654-01	DSL circuit board
IC1,2	87-027-853-01	IC, AN6562
Q1,2,3,4	89-304-583-01	Transistor, 2SC458C
D1,2	87-027-097-01	Diode, 1S1555
D3	87-027-301-01	Zener diode HZ-3A1
	87-049-091-01	Mini terminal, 3P
	87-049-092-01	Mini terminal, 4P
		< **Capacitor** >
C12	87-014-067-88	2700pF PP
≪SWITCH CIRCUIT BOARD SECTION≫		
PCB-D	*	Switch circuit board
Q1,2	89-110-153-41	Transistor, 2SA1015 (O Y)
D1,2,3	87-027-097-01	Diode, 1S1555
S15,17,18	87-031-619-01	Push-siwtch (MODE, DOLBY CONT, PLAY)
S16	87-031-675-01	Push-switch (DSL)
S19	87-031-704-01	Push-switch (POWER)

Symbol No.	Part No.	Description
		< **Resistor** >
R1	87-025-313-01	4.7Ω Non flammable
≪LED CIRCUIT BOARD SECTION≫		
PCB-E	*	LED circuit board
Q1	89-110-155-01	Transistor, 2SA1015 (GR)
D1,2,3	87-027-542-01	LED, LN217RP
D4	87-027-543-01	LED, LN317GP
≪INDICATOR CIRCUIT BOARD SECTION≫		
PCB-F	*	Indicator circuit board
IC1	87-027-690-01	IC, IR2E02
Q1,2	89-304-582-31	Transistor, 2SC458 (B, C)
D1,2,3,4, 5,6,7,8	87-027-834-01	LED, LN242RP
D9	87-027-773-01	LED, GL-9NG4
D10	87-027-852-01	LED, GL-9ND4
S11	87-031-705-01	Tact-switch (REC MUTE)
≪HIGH SPEED CIRCUIT BOARD SECTION≫		
PCB-G	*	High speed circuit board
Q1,2,3,4, 5,6	89-304-582-31	Transistor, 2SC458 (B, C)
D1,2	87-027-097-01	Diode, 1S1555
≪REC CIRCUIT BOARD SECTION≫		
PCB-H	*	REC circuit board
Q1,2	89-320-011-21	Transistor, 2SC2001L
Q3,4	89-304-583-01	Transistor, 2SC458 (C)
	87-049-099-01	Mini terminal, 11P
SFR1,2	87-021-672-01	Semi-fixed resistor, 50kΩ-B
		< **Capacitor** >
C3,4	87-015-422-01	0.33μF 25V Aluminum solid
≪REC EQ CIRCUIT BOARD SECTION≫		
PCB-I	*	REC EQ circuit board
Q1,2	89-320-011-21	Transistor, 2SC2001L
L1,2,3,4, 5,6	87-005-090-01	Micro inductor coil, 2.7mH
	87-049-098-01	Mini terminal, 10P
≪PHONO AMP CIRCUIT BOARD SECTION≫		
PCB-J	82-598-653-01	PHONO AMP circuit board
IC1	87-027-539-01	IC, LA3161
≪DOLBY-NR CIRCUIT BOARD SECTION≫		
PCB-K	82-598-655-01	DOLBY-NR circuit board
IC1,2	87-027-754-01	IC, LM1111C
Q1,2	89-322-405-01	Transistor, 2SC2240 (GR)
D1,2	87-027-097-01	Diode, 1S1555
BPF1,2	82-598-606-01	Band pass filter
	87-049-091-01	Mini terminal, 3P
	87-049-097-01	Mini terminal, 9P
		< **Resistor** >
R13,14	87-025-209-01	3.3kΩ Metal film
		< **Capacitors** >
C27,28	87-015-420-01	0.1μF 25V Aluminum solid
C29,30	87-015-422-01	0.33μF 25V Aluminum solid
≪MS CIRCUIT BOARD SECTION≫		
PCB-L	82-598-635-01	MS circuit board
IC1	87-027-854-01	IC, LC7515
Q1,2,3,4,	89-316-235-61	Transistor, 2SC1623

Symbol No.	Part No.	Description
5,6,8,10, 12		
Q7	89-110-484-01	Transistor, 2SA1048 (Y)
Q9,11	89-106-834-01	Transistor, 2SA683 (R)
D1,2	87-027-619-01	LED, TLG124
D3,4,5	87-027-097-01	Diode 1S1555
D6,8	87-027-228-01	Zener diode 05Z7.5U
D7,9	87-027-365-01	Diode, S5277B
D10,11,12, 13,14	87-127-262-01	LED, TLR124
S1	87-031-706-01	Slide switch (DECK SELECTOR)
S2	87-031-498-01	Push-switch (PROGRAM)
SFR1	87-021-718-01	Semi-fixed resistor 33kΩ-B
		< **Capacitors** >
C11	87-015-376-01	1μF 10V Tantalum
C6,13	87-015-551-01	2.2μF 16V Tantalum
C9	87-015-754-01	18pF Chip capacitor
C10	87-015-627-01	1000pF Chip capacitor
C12	87-015-831-01	6800pF Chip capacitor
C4	87-015-819-01	0.01μF Chip capacitor
C2,7,8	87-015-785-01	0.1μF Chip capacitor
≪POWER CIRCUIT BOARD SECTION≫		
⚠PCB-M	82-551-672-21	Power circuit board
D1	87-027-609-01	Encapsulated diode
⚠J10,11	87-032-929-01	AC-DC jack (DC, AC) (H, HU model only)
⚠J10,11	87-032-958-01	AC-DC jack (DC, AC) (HG model only)
⚠F1	87-035-258-01	Fuse, 5A
	87-098-047-01	Fuse label, 5A
⚠F2	87-035-218-01	Fuse, "T" 400mA
	87-098-012-01	Fuse label, "T" 400mA
⚠	87-033-147-01	Fuse clamp
⚠S24	87-031-466-01	Slide switch (VOLTAGE SELECTOR)
		< **Resistor** >
R1	87-025-194-01	220Ω 2W Metal film
≪LPF CIRCUIT BOARD SECTION≫		
PCB-N	82-598-659-01	LPF circuit board
LPF1	87-008-253-01	Low-pass filter
PIN	82-598-660-01	Pin, 3P
≪MISCELLANEOUS≫		
⚠T1	82-598-639-01	Power transformer
RPH	87-046-209-01	REC/PB head
PH	87-046-251-01	PB head
EH	87-046-196-01	Erase head
	82-598-622-01	EH dummy
M1,2	87-045-183-01	Motor
SP1,2	83-061-601-01	Speaker (Woofer)
SP3,4	82-563-602-01	Speaker (Tweeter)
SOL1	82-598-630-01	Solenoid (Wire 320mm)
SOL2	82-598-623-01	Solenoid (Wire 660mm)
S3,4	87-031-361-01	Leaf switch (P -PAUSE R -PAUSE)
S5,12,13	87-031-548-01	Leaf switch (SYNCHRO DUBBING, R -MOTOR, P -MOTOR)
S14	87-031-537-01	Micro switch (CONT SELECTOR)
S20,21	87-031-649-01	Leaf switch (P -F/R, R -F/R)
PIN1	82-598-632-01	4P connector ass'y

Symbol No.	
CON1	
L4,5	
C1,2	

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Combination cir

P.C.B - D

Symbol No.	Part No.	Description
D12,13	87-027-365-01	Diode, S5277B
L1,2	87-005-088-01	Micro inductor coil, 5.6mH
L3,4	82-487-654-01	Coil, 10mH
L5	82-401-661-01	Choke coil, 600μH
L6,7	87-003-065-01	Choke coil, 360mH
CP1	82-598-609-01	Bias OSC unit (BIAS OSC UNIT)
J1,2,5,6,7,8	82-598-616-01	Jack plate ass'y (PHONO/LINE IN, LINE OUT, EXT-SP, GND)
J3,4	87-049-042-01	Jack, 3.5φ (MIC MIX)
J9	87-049-043-01	Jack, 6.3φ (PHONES)
VR1	82-598-603-01	Volume, 20kΩ-B (MIC)
VR2	87-021-668-01	Volume, 50kΩ-A (TREBLE)
VR3	87-021-669-01	Volume, 100kΩ-W (BALANCE)
VR4	87-021-667-01	Volume, 20kΩ-A (VOLUME)
VR5	82-598-634-01	Volume, 2kΩ-B (DSL)
S6	82-563-609-01	Slide switch (PHONO/LINE IN)
S7	82-598-619-01	Lever switch (FUNCTION)
S8	82-598-620-01	Lever switch (TAPE SELECTOR A)
S9	82-598-618-01	Lever switch (TAPE SELECTOR B)
S10	82-598-617-01	Slide switch (REC/PB)
S22	82-431-604-01	Slide switch (OSC)
SFR1,2	87-021-717-01	Semi-fixed resistor, 220Ω-B
SFR3,4	82-587-634-01	Semi-fixed resistor 100Ω-B
SFR5,6	87-021-624-01	Semi-fixed resistor, 50kΩ-B
SFR7	87-021-719-01	Semi-fixed resistor, 5kΩ-B
SFR8,10	87-021-623-01	Semi-fixed resistor, 20kΩ-B
SFR9,11	87-021-622-01	Semi-fixed resistor, 10kΩ-B
		< **Resistors** >
⚠R90,91	87-029-108-01	1Ω ½W Fuse resistor
⚠R81	87-029-109-01	220Ω ¼W Fuse resistor
R117,118,119, 120	87-025-239-01	2.2Ω ¼W Nonflammable
R85	87-025-332-01	10Ω ¼W Nonflammable
R84	87-025-333-01	56Ω ¼W Nonflammable
		< **Capacitor** >
C37,38	87-014-041-01	220pF PP
C101,102	87-014-043-01	270pF PP
C35,36	87-014-049-81	470pF PP
C11,12	87-014-053-81	680pF PP
C61,62	87-015-428-01	0.22μF 25V Aluminum solid
≪DSL CIRCUIT BOARD SECTION≫		
PCB-C	82-598-654-01	DSL circuit board
IC1,2	87-027-853-01	IC, AN6562
Q1,2,3,4	89-304-583-01	Transistor, 2SC458C
D1,2	87-027-097-01	Diode, 1S1555
D3	87-027-301-01	Zener diode HZ-3A1
	87-049-091-01	Mini terminal, 3P
	87-049-092-01	Mini terminal, 4P
		< **Capacitor** >
C12	87-014-067-88	2700pF PP
≪SWITCH CIRCUIT BOARD SECTION≫		
PCB-D	*	Switch circuit board
Q1,2	89-110-153-41	Transistor, 2SA1015 (O Y)
D1,2,3	87-027-097-01	Diode, 1S1555
S15,17,18	87-031-619-01	Push-siwtch (MODE, DOLBY CONT, PLAY)
S16	87-031-675-01	Push-switch (DSL)
S19	87-031-704-01	Push-switch (POWER)

Symbol No.	Part No.	Description
		< **Resistor** >
R1	87-025-313-01	4.7Ω Non flammable
≪LED CIRCUIT BOARD SECTION≫		
PCB-E	*	LED circuit board
Q1	89-110-155-01	Transistor, 2SA1015 (GR)
D1,2,3	87-027-542-01	LED, LN217RP
D4	87-027-543-01	LED, LN317GP
≪INDICATOR CIRCUIT BOARD SECTION≫		
PCB-F	*	Indicator circuit board
IC1	87-027-690-01	IC, IR2E02
Q1,2	89-304-582-31	Transistor, 2SC458 (B, C)
D1,2,3,4, 5,6,7,8	87-027-834-01	LED, LN242RP
D9	87-027-773-01	LED, GL-9NG4
D10	87-027-852-01	LED, GL-9ND4
S11	87-031-705-01	Tact-switch (REC MUTE)
≪HIGH SPEED CIRCUIT BOARD SECTION≫		
PCB-G	*	High speed circuit board
Q1,2,3,4, 5,6	89-304-582-31	Transistor, 2SC458 (B, C)
D1,2	87-027-097-01	Diode, 1S1555
≪REC CIRCUIT BOARD SECTION≫		
PCB-H	*	REC circuit board
Q1,2	89-320-011-21	Transistor, 2SC2001L
Q3,4	89-304-583-01	Transistor, 2SC458 (C)
	87-049-099-01	Mini terminal, 11P
SFR1,2	87-021-672-01	Semi-fixed resistor, 50kΩ-B
		< **Capacitor** >
C3,4	87-015-422-01	0.33μF 25V Aluminum solid
≪REC EQ CIRCUIT BOARD SECTION≫		
PCB-I	*	REC EQ circuit board
Q1,2	89-320-011-21	Transistor, 2SC2001L
L1,2,3,4, 5,6	87-005-090-01	Micro inductor coil, 2.7mH
	87-049-098-01	Mini terminal, 10P
≪PHONO AMP CIRCUIT BOARD SECTION≫		
PCB-J	82-598-653-01	PHONO AMP circuit board
IC1	87-027-539-01	IC, LA3161
≪DOLBY-NR CIRCUIT BOARD SECTION≫		
PCB-K	82-598-655-01	DOLBY-NR circuit board
IC1,2	87-027-754-01	IC, LM1111C
Q1,2	89-322-405-01	Transistor, 2SC2240 (GR)
D1,2	87-027-097-01	Diode, 1S1555
BPF1,2	82-598-606-01	Band pass filter
	87-049-091-01	Mini terminal, 3P
	87-049-097-01	Mini terminal, 9P
		< **Resistor** >
R13,14	87-025-209-01	3.3kΩ Metal film
		< **Capacitors** >
C27,28	87-015-420-01	0.1μF 25V Aluminum solid
C29,30	87-015-422-01	0.33μF 25V Aluminum solid
≪MS CIRCUIT BOARD SECTION≫		
PCB-L	82-598-635-01	MS circuit board
IC1	87-027-854-01	IC, LC7515
Q1,2,3,4,	89-316-235-61	Transistor, 2SC1623

Symbol No.	Part No.	Description
5,6,8,10, 12		
Q7	89-110-484-01	Transistor, 2SA1048 (Y)
Q9,11	89-106-834-01	Transistor, 2SA683 (R)
D1,2	87-027-619-01	LED, TLG124
D3,4,5	87-027-097-01	Diode 1S1555
D6,8	87-027-228-01	Zener diode 05Z7.5U
D7,9	87-027-365-01	Diode, S5277B
D10,11,12, 13,14	87-127-262-01	LED, TLR124
S1	87-031-706-01	Slide switch (DECK SELECTOR)
S2	87-031-498-01	Push-switch (PROGRAM)
SFR1	87-021-718-01	Semi-fixed resistor 33kΩ-B
		< **Capacitors** >
C11	87-015-376-01	1μF 10V Tantalum
C6,13	87-015-551-01	2.2μF 16V Tantalum
C9	87-015-754-01	18pF Chip capacitor
C10	87-015-627-01	1000pF Chip capacitor
C12	87-015-831-01	6800pF Chip capacitor
C4	87-015-819-01	0.01μF Chip capacitor
C2,7,8	87-015-785-01	0.1μF Chip capacitor
≪POWER CIRCUIT BOARD SECTION≫		
⚠PCB-M	82-551-672-21	Power circuit board
D1	87-027-609-01	Encapsulated diode
⚠J10,11	87-032-929-01	AC-DC jack (DC, AC) (H, HU model only)
⚠J10,11	87-032-958-01	AC-DC jack (DC, AC) (HG model only)
⚠F1	87-035-258-01	Fuse, 5A
	87-098-047-01	Fuse label, 5A
⚠F2	87-035-218-01	Fuse, "T" 400mA
	87-098-012-01	Fuse label, "T" 400mA
⚠	87-033-147-01	Fuse clamp
⚠S24	87-031-466-01	Slide switch (VOLTAGE SELECTOR)
		< **Resistor** >
R1	87-025-194-01	220Ω 2W Metal film
≪LPF CIRCUIT BOARD SECTION≫		
PCB-N	82-598-659-01	LPF circuit board
LPF1	87-008-253-01	Low-pass filter
PIN	82-598-660-01	Pin, 3P
≪MISCELLANEOUS≫		
⚠T1	82-598-639-01	Power transformer
RPH	87-046-209-01	REC/PB head
PH	87-046-251-01	PB head
EH	87-046-196-01	Erase head
	82-598-622-01	EH dummy
M1,2	87-045-183-01	Motor
SP1,2	83-061-601-01	Speaker (Woofer)
SP3,4	82-563-602-01	Speaker (Tweeter)
SOL1	82-598-630-01	Solenoid (Wire 320mm)
SOL2	82-598-623-01	Solenoid (Wire 660mm)
S3,4	87-031-361-01	Leaf switch (P -PAUSE R -PAUSE)
S5,12,13	87-031-548-01	Leaf switch (SYNCHRO DUBBING, R -MOTOR, P -MOTOR)
S14	87-031-537-01	Micro switch (CONT SELECTOR)
S20,21	87-031-649-01	Leaf switch (P -F/R, R -F/R)
PIN1	82-598-632-01	4P connector ass'y

Symbol No.	Part No.	Description
CON1	82-598-633-01	4P connector ass'y
	82-591-636-01	External antenna terminal (FM EXT ANT)
L4,5	82-598-657-01	SW_1, MW bar antenna coil
		< **Capacitor** >
C1,2	87-015-590-01	3.3μF Electrolytic BP

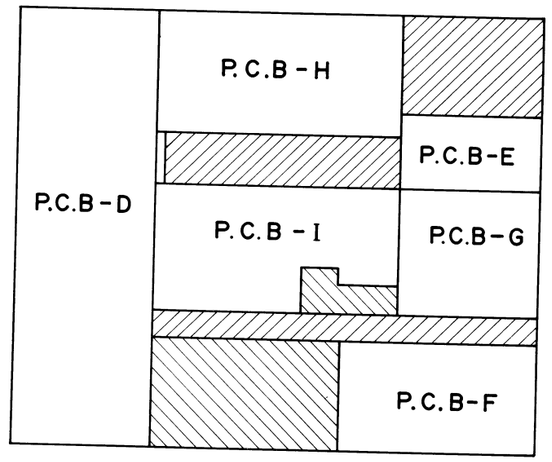
⚠ Safety component symbol

This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications. Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

Note; Combination Circuit Board

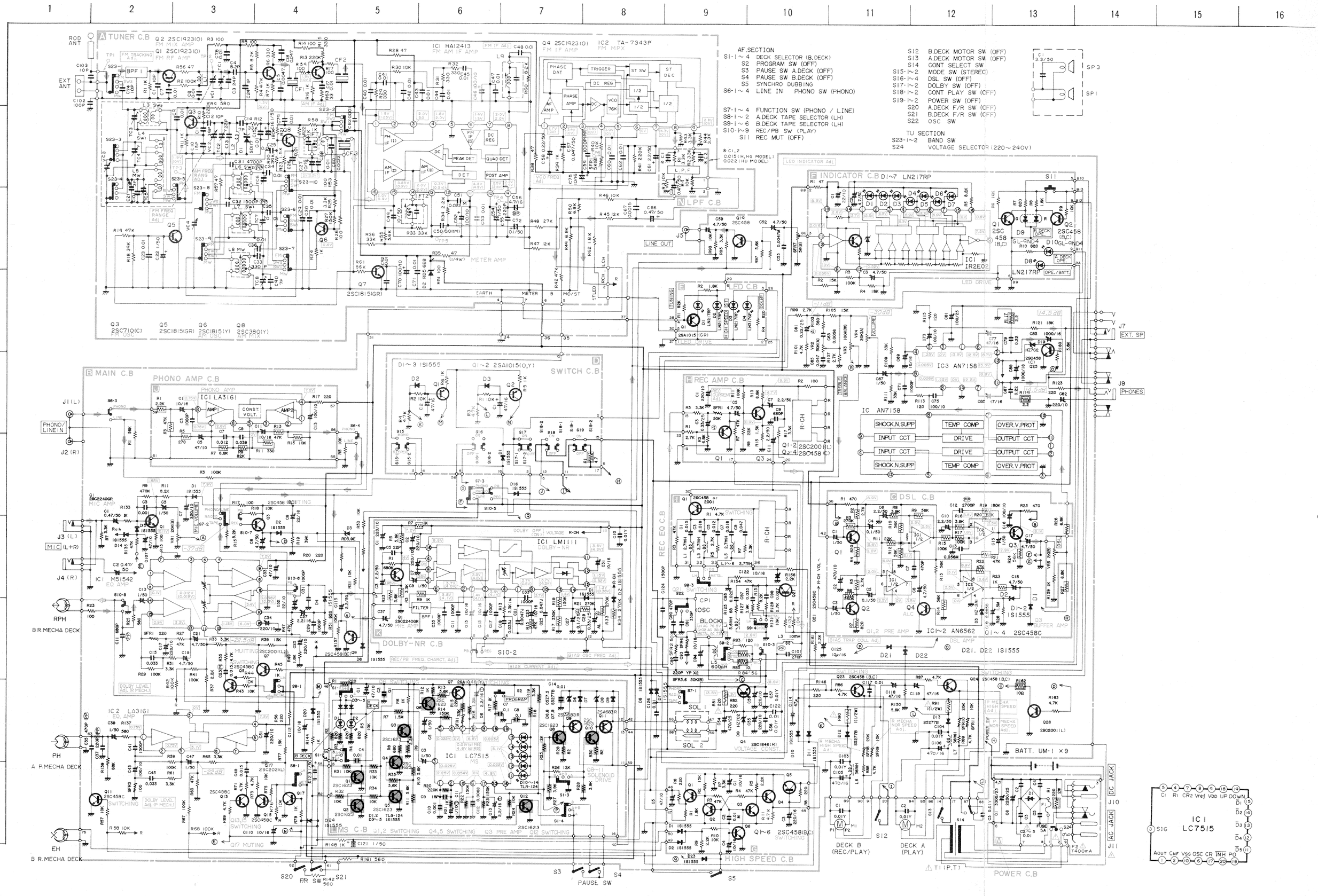
The parts on the electrical parts list which are indicated by an asterisk (*) are supplied as one single combined circuit board. Therefore, they will not be supplied separately. If this becomes necessary, please order the entire circuit board.

Combination circuit board 82-598-625-21



CA-W10H,HU,HG CA-W10H,HU,HG

SCHEMATIC DIAGRAM



NOTE
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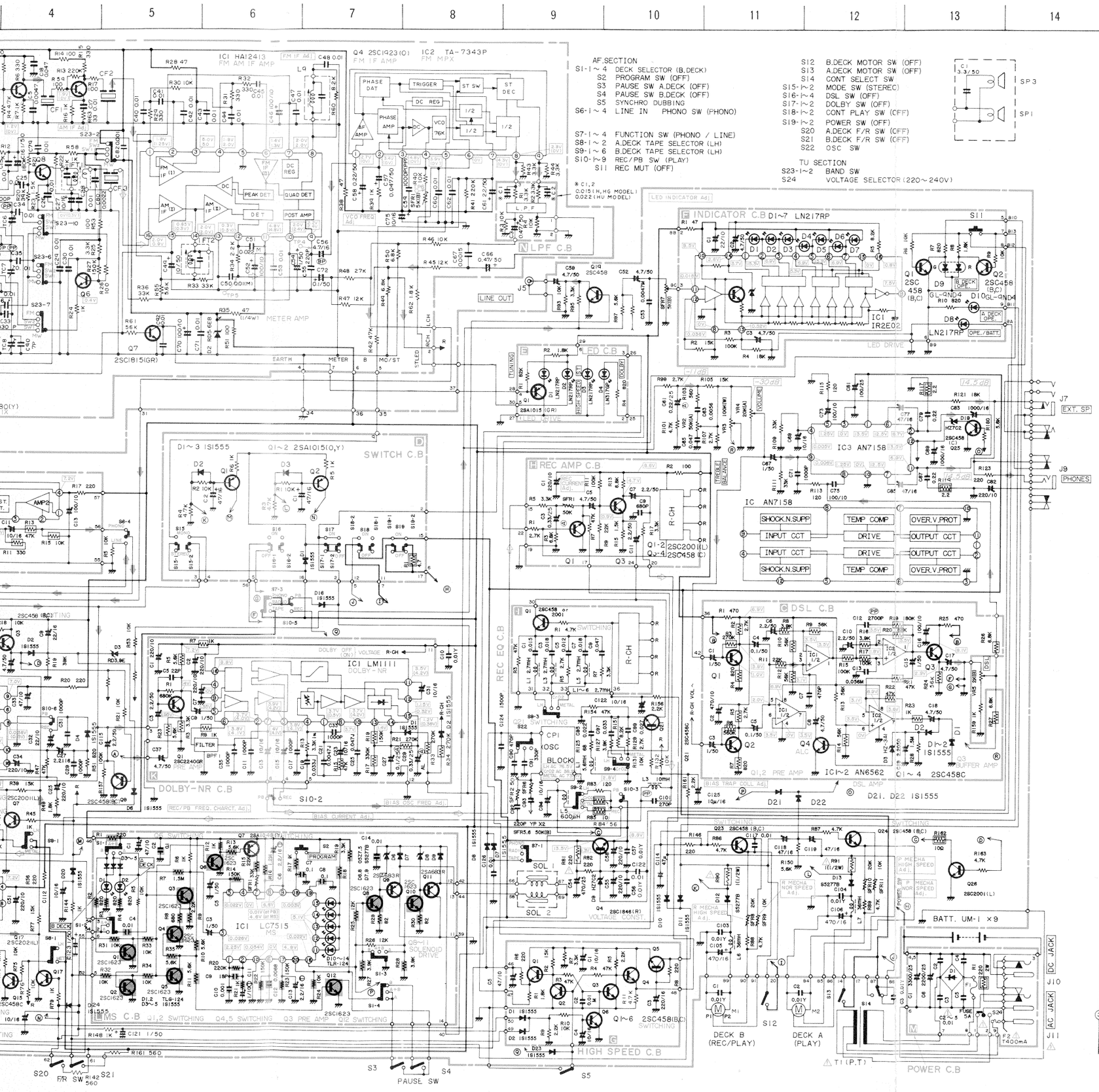
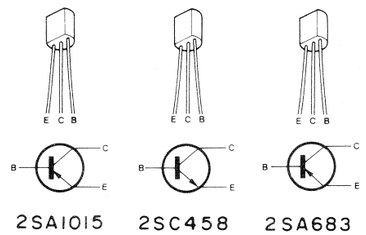


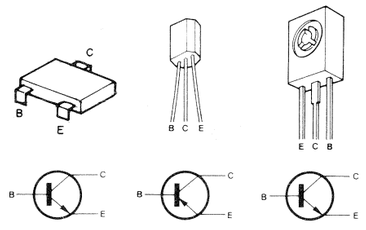
NOTES:

1) B (+) power supply
2) Signal path
   Rec path, AM signal path.
3) The voltage is the reference value measured with a tester (20 k-ohms/V DC) when there are no signals.
   But ( ) is with AM reception or recording.
   An asterisk (*) indicates that the value was measured with a vacuum-tube voltmeter during recording.
4) Resistors with no designation have a rated power of 1/4W and a tolerance of ±5%.
5) Capacitors with no designation have a dielectirc strneght of less than 50WV.
6) The only capacitor tolerance indicated are ±5% (J) and ±10% (K).
7) Ceramic capacitor symbols:
   - For temperature compensation (SL)
   - High dielectric constant system (YY)
   - High dielectric constant system (YW, YP, YZ)
   - Semiconductor ceramic
   - For temperature compensation (SH)
8) Explanation of symbols
   - (M) Mylar capacitor
   - (A) Aluminum solid capacitor
   - (PP) Polypropylene film capacitor
   - (BP) Bi-polarized capacitor
   - Printed resistor
   - Fuse resistor
   - Nonflammable resistor
   - Chip parts
   - Chip capacitor
   - Chip tantalum capacitor
   - Chip resistor
   - Chip diode
   - Chip transistor

⚠ Safety component symbol
This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications. Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

- This schematic diagram is subject to change without notice in the interests of improved performance.





ELECTRICAL MAIN PARTS LIST

Symbol No.	Part No.	Description
≪TUNER CIRCUIT BOARD SECTION≫		
PCB-A	82-593-626-11	Tuner circuit board
IC1	87-027-734-01	IC, HA12413
IC2	87-027-867-01	IC, TA7343P
Q1,2,4	89-319-233-01	Transistor, 2SC1923 (Q)
Q3	89-307-103-01	Transistor, 2SC710 (C)
Q5,7	89-318-155-01	Transistor, 2SC1815 (GR)
Q6	89-318-154-01	Transistor, 2SC1815 (Y)
Q8	89-303-804-01	Transistor, 2SC380 (Y)
D1	87-017-004-01	Diode, SD-117
D2	87-027-226-01	Zener diode, RD, 5.6 EB
L1,2	82-584-639-01	FM antenna coil
		FM OSC coil
L3	82-576-650-01	SW_2 antenna coil
L6	82-563-667-01	SW_2 OSC coil
L7	82-563-666-01	SW_1 OSC coil
L8	82-563-663-01	MW OSC coil
L9	87-008-209-01	FM quad coil
VC1~4	87-011-129-11	PVC
TC1,2,5,6		
TC3,7	87-011-099-01	Trimmer, 8pF
TC4	87-011-126-01	Trimmer, 18pF
TC8	87-011-108-01	Trimmer, 8pF
CF1,2	87-008-153-01	Ceramic filter, 10, 7MA5
CF3	87-008-231-01	Ceramic filter, 468BL
BPF1	87-030-081-01	Band pass filter 108
IFT1	87-008-223-01	AM IFT
IFT2	87-008-232-01	AM IFT 468 kHz
S23	82-588-635-11	Rotary switch (BAND SELECTOR)
SFR1	87-021-566-01	Semi-fixed resistor, 5kΩ-B
CON1	87-032-967-01	Pin, 7P
	87-032-981-01	Wire post
		< **Capacitors** >
C56	87-015-464-01	4.7μF 16V Electrolytic
C33	87-014-045-81	330pF PP
C59	87-014-057-41	1000pF PP
C32	87-014-061-41	1500pF PP
C31	87-014-073-41	4700pF PP
≪MAIN CIRCUIT BOARD SECTION≫		
PCB-B	82-598-621-31	Main circuit board
IC1	87-027-714-01	IC, M51542 (L)
IC2	87-027-539-01	IC, LA3161
IC3,4	87-027-851-01	IC, AN7158
Q1,2	89-322-405-01	Transistor, 2SC2240 (GR)
Q3,9,10 19,20,23, 24	89-304-582-31	Transistor, 2SC458 (B,C)
Q4	89-318-464-01	Transistor, 2SC1846 (R)
Q5,6,11, 12,13,14, 15,16,21, 22,25	89-304-583-01	Transistor, 2SC458 (C)
Q7,8,17, 18,26	89-320-011-21	Transistor, 2SC2001L
D1,2,4,5, 6,7,8,10, 11,14,15, 16,20,21, 22,23,24	87-027-097-01	Diode, 1S1555
D3	87-027-211-01	Zener diode, RD3.9E
D9,19	87-027-606-01	Zener diode, HZ7C2L

Symbol No.	Part No.	Description
D12,13	87-027-365-01	Diode, S5277B
L1,2	87-005-088-01	Micro inductor coil, 5.6mH
L3,4	82-487-654-01	Coil, 10mH
L5	82-401-661-01	Choke coil, 600μH
L6,7	87-003-065-01	Choke coil, 360mH
CP1	82-598-609-01	Bias OSC unit (BIAS OSC UNIT)
J1,2,5,6,7,8	82-598-616-01	Jack plate ass'y (PHONO/LINE IN, LINE OUT, EXT-SP, GND)
J3,4	87-049-042-01	Jack, 3.5φ (MIC MIX)
J9	87-049-043-01	Jack, 6.3φ (PHONES)
VR1	82-598-603-01	Volume, 20kΩ-B (MIC)
VR2	87-021-668-01	Volume, 50kΩ-A (TREBLE)
VR3	87-021-669-01	Volume, 100kΩ-W (BALANCE)
VR4	87-021-667-01	Volume, 20kΩ-A (VOLUME)
VR5	82-598-634-01	Volume, 2kΩ-B (DSL)
S6	82-563-609-01	Slide switch (PHONO/LINE IN)
S7	82-598-619-01	Lever switch (FUNCTION)
S8	82-598-620-01	Lever switch (TAPE SELECTOR A)
S9	82-598-618-01	Lever switch (TAPE SELECTOR B)
S10	82-598-617-01	Slide switch (REC/PB)
S22	82-431-604-01	Slide switch (OSC)
SFR1,2	87-021-717-01	Semi-fixed resistor, 220Ω-B
SFR3,4	82-587-634-01	Semi-fixed resistor 100Ω-B
SFR5,6	87-021-624-01	Semi-fixed resistor, 50kΩ-B
SFR7	87-021-719-01	Semi-fixed resistor, 5kΩ-B
SFR8,10	87-021-623-01	Semi-fixed resistor, 20kΩ-B
SFR9,11	87-021-622-01	Semi-fixed resistor, 10kΩ-B
		< **Resistors** >
⚠R90,91	87-029-108-01	1Ω ½W Fuse resistor
⚠R81	87-029-109-01	220Ω ¼W Fuse resistor
R117,118,119, 120	87-025-239-01	2.2Ω ¼W Nonflammable
R85	87-025-332-01	10Ω ¼W Nonflammable
R84	87-025-333-01	56Ω ¼W Nonflammable
		< **Capacitor** >
C37,38	87-014-041-01	220pF PP
C101,102	87-014-043-01	270pF PP
C35,36	87-014-049-81	470pF PP
C11,12	87-014-053-81	680pF PP
C61,62	87-015-428-01	0.22μF 25V Aluminum solid
≪DSL CIRCUIT BOARD SECTION≫		
PCB-C	82-598-654-01	DSL circuit board
IC1,2	87-027-853-01	IC, AN6562
Q1,2,3,4	89-304-583-01	Transistor, 2SC458C
D1,2	87-027-097-01	Diode, 1S1555
D3	87-027-301-01	Zener diode HZ-3A1
	87-049-091-01	Mini terminal, 3P
	87-049-092-01	Mini terminal, 4P
		< **Capacitor** >
C12	87-014-067-88	2700pF PP
≪SWITCH CIRCUIT BOARD SECTION≫		
PCB-D	*	Switch circuit board
Q1,2	89-110-153-41	Transistor, 2SA1015 (O Y)
D1,2,3	87-027-097-01	Diode, 1S1555
S15,17,18	87-031-619-01	Push-siwtch (MODE, DOLBY CONT, PLAY)
S16	87-031-675-01	Push-switch (DSL)
S19	87-031-704-01	Push-switch (POWER)

Symbol No.	Part No.	Description
		< **Resistor** >
R1	87-025-313-01	4.7Ω Non flammable
≪LED CIRCUIT BOARD SECTION≫		
PCB-E	*	LED circuit board
Q1	89-110-155-01	Transistor, 2SA1015 (GR)
D1,2,3	87-027-542-01	LED, LN217RP
D4	87-027-543-01	LED, LN317GP
≪INDICATOR CIRCUIT BOARD SECTION≫		
PCB-F	*	Indicator circuit board
IC1	87-027-690-01	IC, IR2E02
Q1,2	89-304-582-31	Transistor, 2SC458 (B, C)
D1,2,3,4, 5,6,7,8	87-027-834-01	LED, LN242RP
D9	87-027-773-01	LED, GL-9NG4
D10	87-027-852-01	LED, GL-9ND4
S11	87-031-705-01	Tact-switch (REC MUTE)
≪HIGH SPEED CIRCUIT BOARD SECTION≫		
PCB-G	*	High speed circuit board
Q1,2,3,4, 5,6	89-304-582-31	Transistor, 2SC458 (B, C)
D1,2	87-027-097-01	Diode, 1S1555
≪REC CIRCUIT BOARD SECTION≫		
PCB-H	*	REC circuit board
Q1,2	89-320-011-21	Transistor, 2SC2001L
Q3,4	89-304-583-01	Transistor, 2SC458 (C)
	87-049-099-01	Mini terminal, 11P
SFR1,2	87-021-672-01	Semi-fixed resistor, 50kΩ-B
		< **Capacitor** >
C3,4	87-015-422-01	0.33μF 25V Aluminum solid
≪REC EQ CIRCUIT BOARD SECTION≫		
PCB-I	*	REC EQ circuit board
Q1,2	89-320-011-21	Transistor, 2SC2001L
L1,2,3,4, 5,6	87-005-090-01	Micro inductor coil, 2.7mH
	87-049-098-01	Mini terminal, 10P
≪PHONO AMP CIRCUIT BOARD SECTION≫		
PCB-J	82-598-653-01	PHONO AMP circuit board
IC1	87-027-539-01	IC, LA3161
≪DOLBY-NR CIRCUIT BOARD SECTION≫		
PCB-K	82-598-655-01	DOLBY-NR circuit board
IC1,2	87-027-754-01	IC, LM1111C
Q1,2	89-322-405-01	Transistor, 2SC2240 (GR)
D1,2	87-027-097-01	Diode, 1S1555
BPF1,2	82-598-606-01	Band pass filter
	87-049-091-01	Mini terminal, 3P
	87-049-097-01	Mini terminal, 9P
		< **Resistor** >
R13,14	87-025-209-01	3.3kΩ Metal film
		< **Capacitors** >
C27,28	87-015-420-01	0.1μF 25V Aluminum solid
C29,30	87-015-422-01	0.33μF 25V Aluminum solid
≪MS CIRCUIT BOARD SECTION≫		
PCB-L	82-598-635-01	MS circuit board
IC1	87-027-854-01	IC, LC7515
Q1,2,3,4,	89-316-235-61	Transistor, 2SC1623

Symbol No.	Part No.	Description
5,6,8,10, 12		
Q7	89-110-484-01	Transistor, 2SA1048 (Y)
Q9,11	89-106-834-01	Transistor, 2SA683 (R)
D1,2	87-027-619-01	LED, TLG124
D3,4,5	87-027-097-01	Diode 1S1555
D6,8	87-027-228-01	Zener diode 05Z7.5U
D7,9	87-027-365-01	Diode, S5277B
D10,11,12, 13,14	87-127-262-01	LED, TLR124
S1	87-031-706-01	Slide switch (DECK SELECTOR)
S2	87-031-498-01	Push-switch (PROGRAM)
SFR1	87-021-718-01	Semi-fixed resistor 33kΩ-B
		< **Capacitors** >
C11	87-015-376-01	1μF 10V Tantalum
C6,13	87-015-551-01	2.2μF 16V Tantalum
C9	87-015-754-01	18pF Chip capacitor
C10	87-015-627-01	1000pF Chip capacitor
C12	87-015-831-01	6800pF Chip capacitor
C4	87-015-819-01	0.01μF Chip capacitor
C2,7,8	87-015-785-01	0.1μF Chip capacitor
≪POWER CIRCUIT BOARD SECTION≫		
⚠PCB-M	82-551-672-21	Power circuit board
D1	87-027-609-01	Encapsulated diode
⚠J10,11	87-032-929-01	AC-DC jack (DC, AC) (H, HU model only)
⚠J10,11	87-032-958-01	AC-DC jack (DC, AC) (HG model only)
⚠F1	87-035-258-01	Fuse, 5A
	87-098-047-01	Fuse label, 5A
⚠F2	87-035-218-01	Fuse, "T" 400mA
	87-098-012-01	Fuse label, "T" 400mA
⚠	87-033-147-01	Fuse clamp
⚠S24	87-031-466-01	Slide switch (VOLTAGE SELECTOR)
		< **Resistor** >
R1	87-025-194-01	220Ω 2W Metal film
≪LPF CIRCUIT BOARD SECTION≫		
PCB-N	82-598-659-01	LPF circuit board
LPF1	87-008-253-01	Low-pass filter
PIN	82-598-660-01	Pin, 3P
≪MISCELLANEOUS≫		
⚠T1	82-598-639-01	Power transformer
RPH	87-046-209-01	REC/PB head
PH	87-046-251-01	PB head
EH	87-046-196-01	Erase head
	82-598-622-01	EH dummy
M1,2	87-045-183-01	Motor
SP1,2	83-061-601-01	Speaker (Woofer)
SP3,4	82-563-602-01	Speaker (Tweeter)
SOL1	82-598-630-01	Solenoid (Wire 320mm)
SOL2	82-598-623-01	Solenoid (Wire 660mm)
S3,4	87-031-361-01	Leaf switch (P -PAUSE R -PAUSE)
S5,12,13	87-031-548-01	Leaf switch (SYNCHRO DUBBING, R -MOTOR, P -MOTOR)
S14	87-031-537-01	Micro switch (CONT SELECTOR)
S20,21	87-031-649-01	Leaf switch (P -F/R, R -F/R)
PIN1	82-598-632-01	4P connector ass'y

Symbol No.	
CON1	8
	8
L4,5	8
C1,2	8

⚠ Safety compo
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Note; Combinatio
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Combination circu

P.C.B - D

Symbol No.	Part No.	Description
D12,13	87-027-365-01	Diode, S5277B
L1,2	87-005-088-01	Micro inductor coil, 5.6mH
L3,4	82-487-654-01	Coil, 10mH
L5	82-401-661-01	Choke coil, 600μH
L6,7	87-003-065-01	Choke coil, 360mH
CP1	82-598-609-01	Bias OSC unit (BIAS OSC UNIT)
J1,2,5,6,7,8	82-598-616-01	Jack plate ass'y (PHONO/LINE IN, LINE OUT, EXT-SP, GND)
J3,4	87-049-042-01	Jack, 3.5φ (MIC MIX)
J9	87-049-043-01	Jack, 6.3φ (PHONES)
VR1	82-598-603-01	Volume, 20kΩ-B (MIC)
VR2	87-021-668-01	Volume, 50kΩ-A (TREBLE)
VR3	87-021-669-01	Volume, 100kΩ-W (BALANCE)
VR4	87-021-667-01	Volume, 20kΩ-A (VOLUME)
VR5	82-598-634-01	Volume, 2kΩ-B (DSL)
S6	82-563-609-01	Slide switch (PHONO/LINE IN)
S7	82-598-619-01	Lever switch (FUNCTION)
S8	82-598-620-01	Lever switch (TAPE SELECTOR A)
S9	82-598-618-01	Lever switch (TAPE SELECTOR B)
S10	82-598-617-01	Slide switch (REC/PB)
S22	82-431-604-01	Slide switch (OSC)
SFR1,2	87-021-717-01	Semi-fixed resistor, 220Ω-B
SFR3,4	82-587-634-01	Semi-fixed resistor 100Ω-B
SFR5,6	87-021-624-01	Semi-fixed resistor, 50kΩ-B
SFR7	87-021-719-01	Semi-fixed resistor, 5kΩ-B
SFR8,10	87-021-623-01	Semi-fixed resistor, 20kΩ-B
SFR9,11	87-021-622-01	Semi-fixed resistor, 10kΩ-B
		< **Resistors** >
⚠R90,91	87-029-108-01	1Ω ½W Fuse resistor
⚠R81	87-029-109-01	220Ω ¼W Fuse resistor
R117,118,119, 120	87-025-239-01	2.2Ω ¼W Nonflammable
R85	87-025-332-01	10Ω ¼W Nonflammable
R84	87-025-333-01	56Ω ¼W Nonflammable
		< **Capacitor** >
C37,38	87-014-041-01	220pF PP
C101,102	87-014-043-01	270pF PP
C35,36	87-014-049-81	470pF PP
C11,12	87-014-053-81	680pF PP
C61,62	87-015-428-01	0.22μF 25V Aluminum solid
≪DSL CIRCUIT BOARD SECTION≫		
PCB-C	82-598-654-01	DSL circuit board
IC1,2	87-027-853-01	IC, AN6562
Q1,2,3,4	89-304-583-01	Transistor, 2SC458C
D1,2	87-027-097-01	Diode, 1S1555
D3	87-027-301-01	Zener diode HZ-3A1
	87-049-091-01	Mini terminal, 3P
	87-049-092-01	Mini terminal, 4P
		< **Capacitor** >
C12	87-014-067-88	2700pF PP
≪SWITCH CIRCUIT BOARD SECTION≫		
PCB-D	*	Switch circuit board
Q1,2	89-110-153-41	Transistor, 2SA1015 (O Y)
D1,2,3	87-027-097-01	Diode, 1S1555
S15,17,18	87-031-619-01	Push-siwtch (MODE, DOLBY CONT, PLAY)
S16	87-031-675-01	Push-switch (DSL)
S19	87-031-704-01	Push-switch (POWER)

Symbol No.	Part No.	Description
		< **Resistor** >
R1	87-025-313-01	4.7Ω Non flammable
≪LED CIRCUIT BOARD SECTION≫		
PCB-E	*	LED circuit board
Q1	89-110-155-01	Transistor, 2SA1015 (GR)
D1,2,3	87-027-542-01	LED, LN217RP
D4	87-027-543-01	LED, LN317GP
≪INDICATOR CIRCUIT BOARD SECTION≫		
PCB-F	*	Indicator circuit board
IC1	87-027-690-01	IC, IR2E02
Q1,2	89-304-582-31	Transistor, 2SC458 (B, C)
D1,2,3,4, 5,6,7,8	87-027-834-01	LED, LN242RP
D9	87-027-773-01	LED, GL-9NG4
D10	87-027-852-01	LED, GL-9ND4
S11	87-031-705-01	Tact-switch (REC MUTE)
≪HIGH SPEED CIRCUIT BOARD SECTION≫		
PCB-G	*	High speed circuit board
Q1,2,3,4, 5,6	89-304-582-31	Transistor, 2SC458 (B, C)
D1,2	87-027-097-01	Diode, 1S1555
≪REC CIRCUIT BOARD SECTION≫		
PCB-H	*	REC circuit board
Q1,2	89-320-011-21	Transistor, 2SC2001L
Q3,4	89-304-583-01	Transistor, 2SC458 (C)
	87-049-099-01	Mini terminal, 11P
SFR1,2	87-021-672-01	Semi-fixed resistor, 50kΩ-B
		< **Capacitor** >
C3,4	87-015-422-01	0.33μF 25V Aluminum solid
≪REC EQ CIRCUIT BOARD SECTION≫		
PCB-I	*	REC EQ circuit board
Q1,2	89-320-011-21	Transistor, 2SC2001L
L1,2,3,4, 5,6	87-005-090-01	Micro inductor coil, 2.7mH
	87-049-098-01	Mini terminal, 10P
≪PHONO AMP CIRCUIT BOARD SECTION≫		
PCB-J	82-598-653-01	PHONO AMP circuit board
IC1	87-027-539-01	IC, LA3161
≪DOLBY-NR CIRCUIT BOARD SECTION≫		
PCB-K	82-598-655-01	DOLBY-NR circuit board
IC1,2	87-027-754-01	IC, LM1111C
Q1,2	89-322-405-01	Transistor, 2SC2240 (GR)
D1,2	87-027-097-01	Diode, 1S1555
BPF1,2	82-598-606-01	Band pass filter
	87-049-091-01	Mini terminal, 3P
	87-049-097-01	Mini terminal, 9P
		< **Resistor** >
R13,14	87-025-209-01	3.3kΩ Metal film
		< **Capacitors** >
C27,28	87-015-420-01	0.1μF 25V Aluminum solid
C29,30	87-015-422-01	0.33μF 25V Aluminum solid
≪MS CIRCUIT BOARD SECTION≫		
PCB-L	82-598-635-01	MS circuit board
IC1	87-027-854-01	IC, LC7515
Q1,2,3,4,	89-316-235-61	Transistor, 2SC1623

Symbol No.	Part No.	Description
5,6,8,10, 12		
Q7	89-110-484-01	Transistor, 2SA1048 (Y)
Q9,11	89-106-834-01	Transistor, 2SA683 (R)
D1,2	87-027-619-01	LED, TLG124
D3,4,5	87-027-097-01	Diode 1S1555
D6,8	87-027-228-01	Zener diode 05Z7.5U
D7,9	87-027-365-01	Diode, S5277B
D10,11,12, 13,14	87-127-262-01	LED, TLR124
S1	87-031-706-01	Slide switch (DECK SELECTOR)
S2	87-031-498-01	Push-switch (PROGRAM)
SFR1	87-021-718-01	Semi-fixed resistor 33kΩ-B
		< **Capacitors** >
C11	87-015-376-01	1μF 10V Tantalum
C6,13	87-015-551-01	2.2μF 16V Tantalum
C9	87-015-754-01	18pF Chip capacitor
C10	87-015-627-01	1000pF Chip capacitor
C12	87-015-831-01	6800pF Chip capacitor
C4	87-015-819-01	0.01μF Chip capacitor
C2,7,8	87-015-785-01	0.1μF Chip capacitor
≪POWER CIRCUIT BOARD SECTION≫		
⚠PCB-M	82-551-672-21	Power circuit board
D1	87-027-609-01	Encapsulated diode
⚠J10,11	87-032-929-01	AC-DC jack (DC, AC) (H, HU model only)
⚠J10,11	87-032-958-01	AC-DC jack (DC, AC) (HG model only)
⚠F1	87-035-258-01	Fuse, 5A
	87-098-047-01	Fuse label, 5A
⚠F2	87-035-218-01	Fuse, "T" 400mA
	87-098-012-01	Fuse label, "T" 400mA
⚠	87-033-147-01	Fuse clamp
⚠S24	87-031-466-01	Slide switch (VOLTAGE SELECTOR)
		< **Resistor** >
R1	87-025-194-01	220Ω 2W Metal film
≪LPF CIRCUIT BOARD SECTION≫		
PCB-N	82-598-659-01	LPF circuit board
LPF1	87-008-253-01	Low-pass filter
PIN	82-598-660-01	Pin, 3P
≪MISCELLANEOUS≫		
⚠T1	82-598-639-01	Power transformer
RPH	87-046-209-01	REC/PB head
PH	87-046-251-01	PB head
EH	87-046-196-01	Erase head
	82-598-622-01	EH dummy
M1,2	87-045-183-01	Motor
SP1,2	83-061-601-01	Speaker (Woofer)
SP3,4	82-563-602-01	Speaker (Tweeter)
SOL1	82-598-630-01	Solenoid (Wire 320mm)
SOL2	82-598-623-01	Solenoid (Wire 660mm)
S3,4	87-031-361-01	Leaf switch (P -PAUSE R -PAUSE)
S5,12,13	87-031-548-01	Leaf switch (SYNCHRO DUBBING, R -MOTOR, P -MOTOR)
S14	87-031-537-01	Micro switch (CONT SELECTOR)
S20,21	87-031-649-01	Leaf switch (P -F/R, R -F/R)
PIN1	82-598-632-01	4P connector ass'y

Symbol No.	Part No.	Description
CON1	82-598-633-01	4P connector ass'y
	82-591-636-01	External antenna terminal (FM EXT ANT)
L4,5	82-598-657-01	SW_1, MW bar antenna coil
		< **Capacitor** >
C1,2	87-015-590-01	3.3μF Electrolytic BP

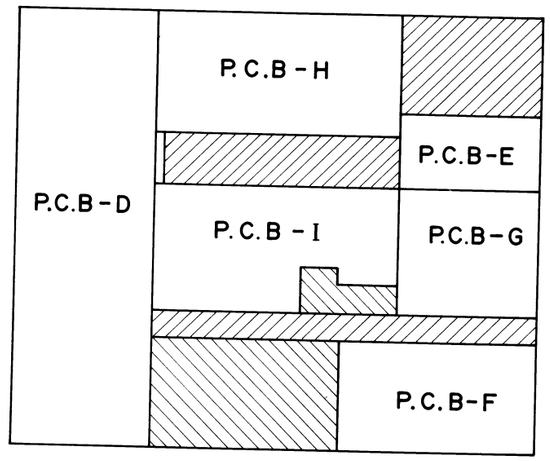
⚠ Safety component symbol

This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications. Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

Note; Combination Circuit Board

The parts on the electrical parts list which are indicated by an asterisk (*) are supplied as one single combined circuit board. Therefore, they will not be supplied separately. If this becomes necessary, please order the entire circuit board.

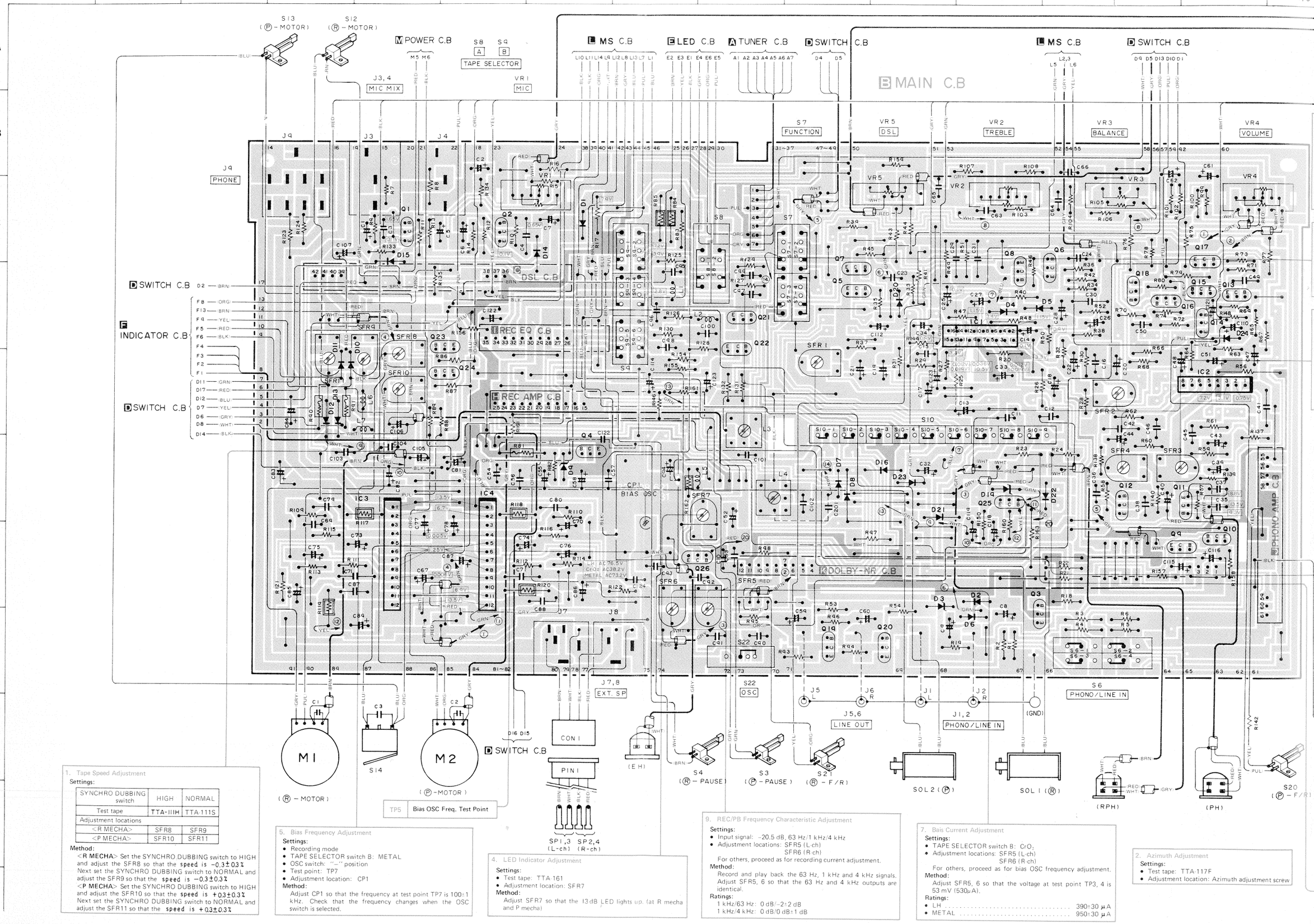
Combination circuit board 82-598-625-21



WA

WIRING–1

NOTES (1) B(+) Pattern Component side pattern Others pattern
(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals.
An asterisk (*) indicates that the value was measured with a vacuum-tube voltmeter during recording.



1. Tape Speed Adjustment

Settings:

SYNCHRO DUBBING switch	HIGH	NORMAL
Test tape	TTA-111H	TTA-111S
Adjustment locations		
<R MECHA>	SFR8	SFR9
<P MECHA>	SFR10	SFR11

Method:
<R MECHA> Set the SYNCHRO DUBBING switch to HIGH and adjust the SFR8 so that the speed is −0.3±0.3%. Next set the SYNCHRO DUBBING switch to NORMAL and adjust the SFR9 so that the speed is −0.3±0.3%.
<P MECHA> Set the SYNCHRO DUBBING switch to HIGH and adjust the SFR10 so that the speed is +0.3±0.3%. Next set the SYNCHRO DUBBING switch to NORMAL and adjust the SFR11 so that the speed is +0.3±0.3%.

5. Bias Frequency Adjustment

Settings:
- Recording mode
- TAPE SELECTOR switch B: METAL
- OSC switch: "–" position
- Test point: TP7
- Adjustment location: CP1

Method:
Adjust CP1 so that the frequency at test point TP7 is 100±1 kHz. Check that the frequency changes when the OSC switch is selected.

TP5 Bias OSC Freq. Test Point

4. LED Indicator Adjustment

Settings:
- Test tape: TTA-161
- Adjustment location: SFR7

Method:
Adjust SFR7 so that the 13dB LED lights up. (at R mecha and P mecha)

9. REC/PB Frequency Characteristic Adjustment

Settings:
- Input signal: −20.5 dB, 63 Hz/1 kHz/4 kHz
- Adjustment locations: SFR5 (L-ch)
  SFR6 (R-ch)

For others, proceed as for recording current adjustment.

Method:
Record and play back the 63 Hz, 1 kHz and 4 kHz signals. Adjust SFR5, 6 so that the 63 Hz and 4 kHz outputs are identical.

Ratings:
1 kHz/63 Hz: 0 dB/−2±2 dB
1 kHz/4 kHz: 0 dB/0 dB±1 dB

7. Bais Current Adjustment

Settings:
- TAPE SELECTOR switch B: CrO_2
- Adjustment locations: SFR5 (L-ch)
  SFR6 (R-ch)

For others, proceed as for bias OSC frequency adjustment.

Method:
Adjust SFR5, 6 so that the voltage at test point TP3, 4 is 53 mV (530μA).

Ratings:
- LH ..... 390±30 μA
- METAL ..... 950±30 μA

2. Azimuth Adjustment

Settings:
- Test tape: TTA-117F
- Adjustment location: Azimuth adjustment screw

TP2 Bias Test Point (R

TP1 Bias Test Point (L

8. Recording Current Adjustme

Settings:
- FUNCTION switch: LINE IN
- TAPE SELECTOR switch B:
- DOLBY-NR switch: ON
- Test tape: TTA-119G
- Input signal: LINE IN, −20.5
- Adjustment locations: SFR1
  SFR2

Method:
Record and play back the 1 that the 1 kHz output deviati

6. Bias Trap Coil Adjustment

Settings:
- Test point: TP1 (L-ch), TP2
- Adjustment locations: L3 (L-
  L4 (R-

For others, proceed as for

Method:
Adjust L3,4 so that the voltag to minimum value.

3. Dolby Level Adjustment

Settings:
- Test tape: TTA-161
- TAPE SELECTOR switch:
- DOLBY-NR switch: ON
- Test point: TP3.5 (L-ch), TP
- Adjustment locations: <R M
  SFR1
  <P M
  SFR3

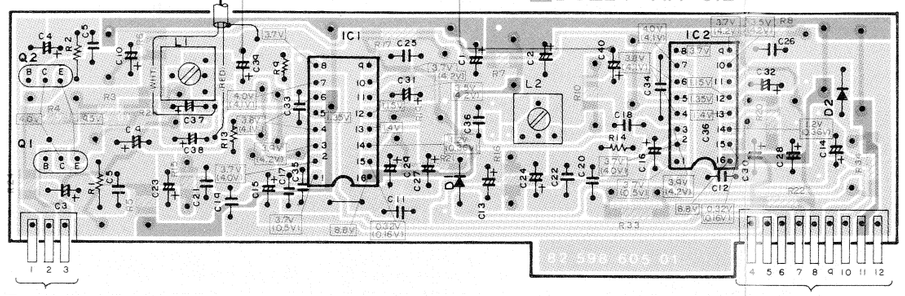
Method:
Playback the test tape and 580 mV.

15 16 17 18 19 20 21 22 23 24 25 26 27

TP3 Dolby Test Point (L-ch)

TP4 Dolby Test Point (R-ch)

K DOLBY-NR C.B



B MAIN C.B

B MAIN C.B

8. Recording Current Adjustment

Settings:
- FUNCTION switch: LINE IN
- TAPE SELECTOR switch B: CrO_2
- DOLBY-NR switch: ON
- Test tape: TTA-119G
- Input signal: LINE IN, −20.5 dB, 1 kHz
- Adjustment locations: SFR1 (L-ch)
  SFR2 (R-ch)

Method:
Record and play back the 1 kHz signal. Adjust SFR1, 2 so that the 1 kHz output deviation are ±0.5 dB.

6. Bias Trap Coil Adjustment

Settings:
- Test point: TP1 (L-ch), TP2 (R-ch)
- Adjustment locations: L3 (L-ch),
  L4 (R-ch)

For others, proceed as for bias OSC frequency adjustment.

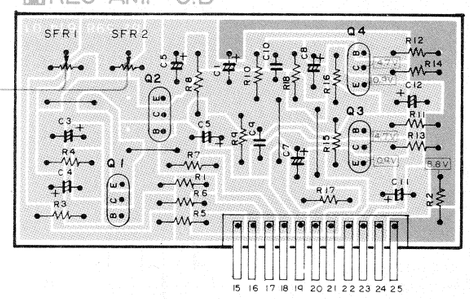
Method:
Adjust L3,4 so that the voltage at test point TP1, 2 is reduced to minimum value.

3. Dolby Level Adjustment

Settings:
- Test tape: TTA-161
- TAPE SELECTOR switch: LH
- DOLBY-NR switch: ON
- Test point: TP3.5 (L-ch), TP4.6 (R-ch)
- Adjustment locations: <R MECHA>
  SFR1 (Lch), SFR2 (Rch)
  <P MECHA>
  SFR3 (Lch), SFR2 (Rch)

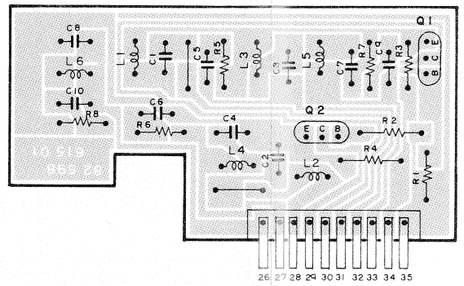
Method:
Playback the test tape and adjust so that the test point is 580 mV.

H REC AMP C.B



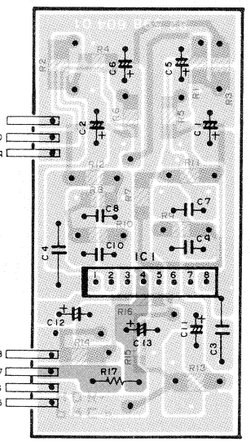
B MAIN C.B

I REC EQ C.B



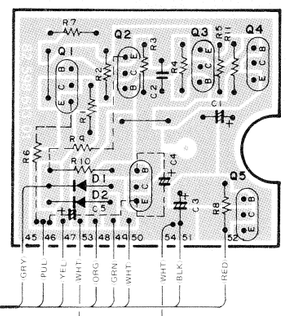
B MAIN C.B

J PHONO AMP C.B

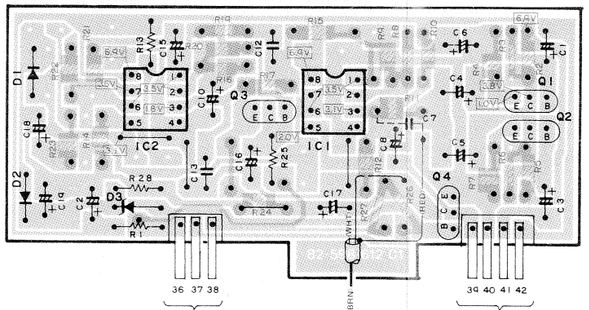


B MAIN C.B

G HIGH SPEED C.B



C DSL C.B



B MAIN C.B

B MAIN C.B

VR4 VOLUME

S20 (Ⓟ − F/R)

(PH)

(MECHA EARTH)

S5 (SYNCHRO DUBBING)

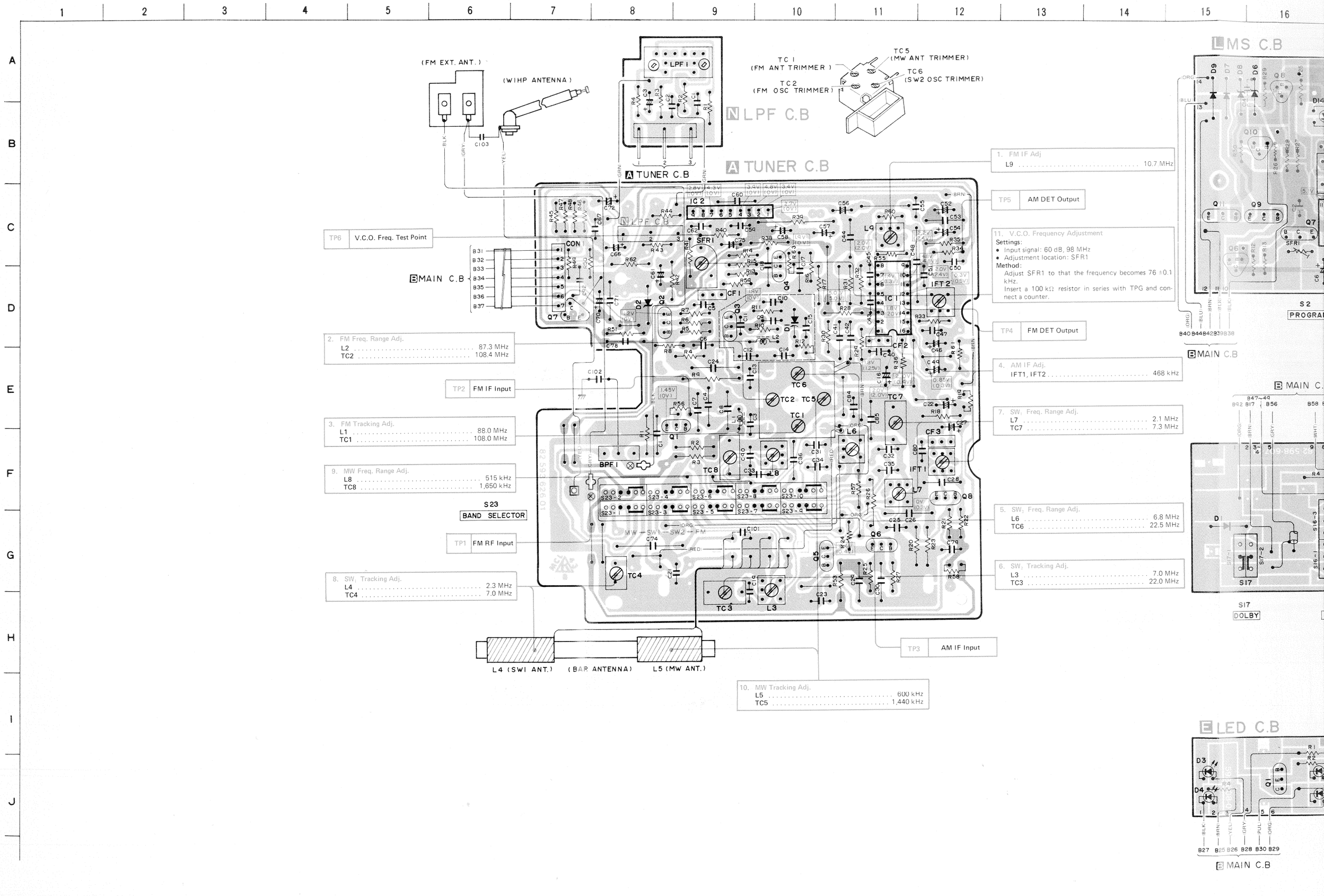
TP2 Bias Test Point (R-ch)

TP1 Bias Test Point (L-ch)

ent
17F
on: Azimuth adjustment screw

WIRING–2

NOTES (1) B(+) Pattern Component side pattern Others pattern
(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals.
But ( ) is with AM reception.



thers pattern
20 K ohms/V DC) when there are no signals.

14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

..... 10.7 MHz

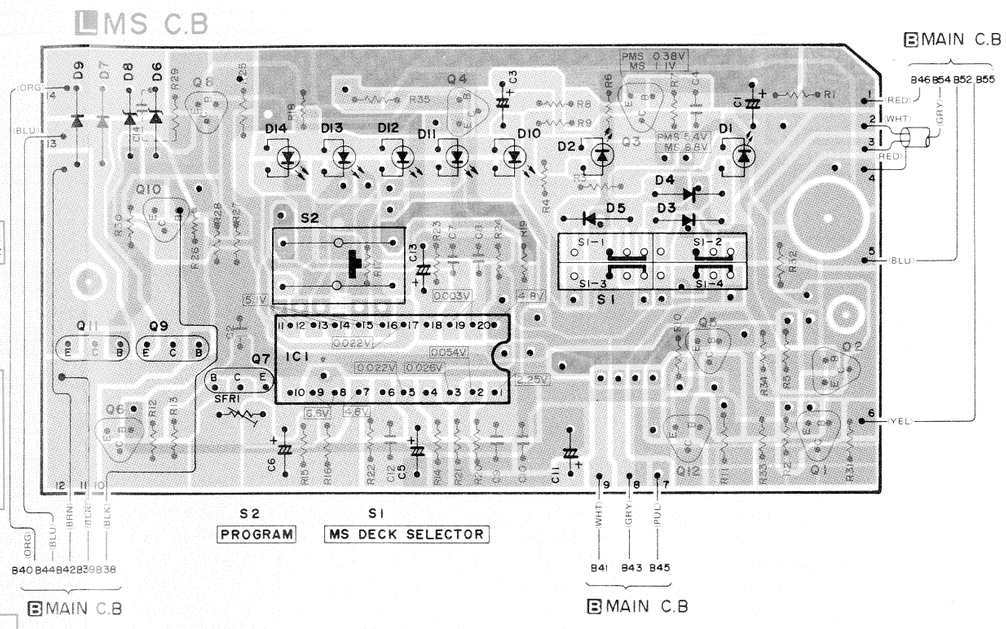
becomes 76 ±0.1
ith TPG and con-

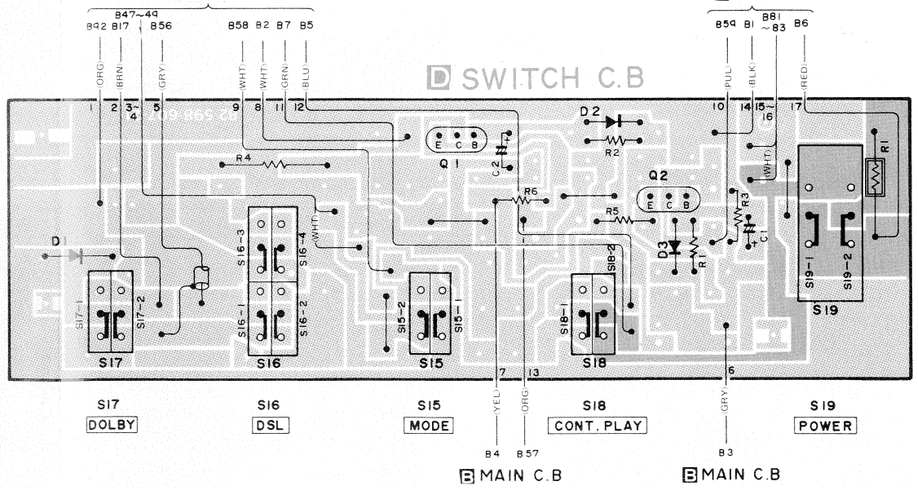
..... 468 kHz

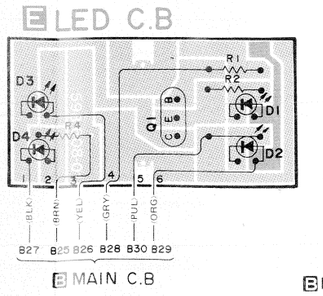
..... 2.1 MHz
..... 7.3 MHz

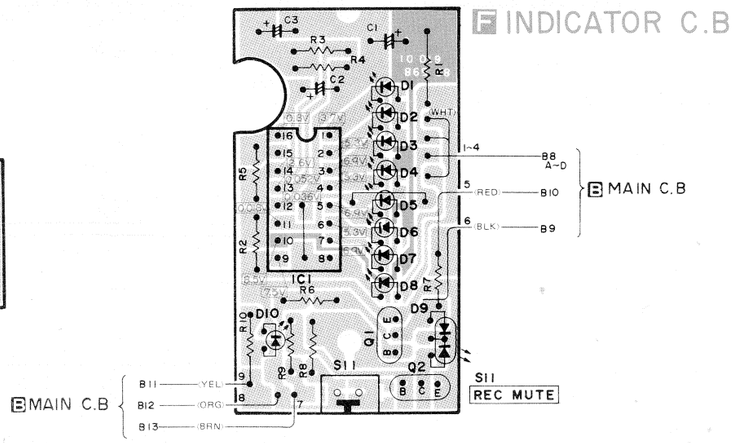
..... 6.8 MHz
..... 22.5 MHz

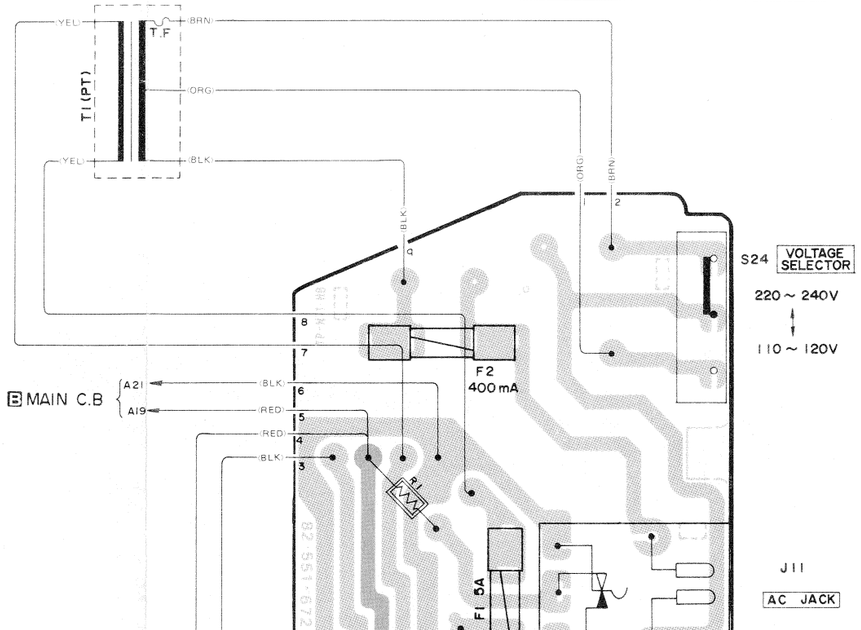
..... 7.0 MHz
..... 22.0 MHz











Note:
When replacing the fuse, open the fuse cover of the power PC Board after removing the mechanism or seeting up the main PC Board.

ACCESSORIES/PACKAGE

Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty	
1	82-598-857-01		Printed indiv., Packing	*	1	
2	82-598-852-01		Cushion L, Printed indiv.	*	1	
3	82-598-853-01		Cushion R, Printed indiv.	*	1	
4	87-056-628-01		Poly-vinul sack		1	
5	87-051-171-11		Poly-vinyl sack		1	
6	82-598-904-01		Instructions booklet	*	1	
7	87-056-009-51		Distributors list (H, HG model only)		1	
8	87-056-059-01		Guarantee card (HG model only)		1	
9	87-056-057-01		Service station list (HU model only)		1	
10	87-056-045-01		Guarantee card (HU model only)		1	
11	83-061-002-01		Speaker, SC-W10		1	
12a	87-034-880-01		AC power cord (H, HU model only)		1	
12b	87-034-893-01		AC power cord (HG model only)		1	
13	87-032-845-01		Siemens plug (H, HU model only)		1	